

Michigan Department of Natural Resources & Environment  
Air Quality Division

EFFECTIVE DATE: MAY 19, 2011

ISSUED TO

AutoAlliance International

State Registration Number (SRN): N0929

LOCATED AT

1 International Drive, Flat Rock, Michigan 48134

**RENEWABLE OPERATING PERMIT**

Permit Number: MI-ROP-N0929-2011

Expiration Date: May 19, 2016

Administratively Complete ROP Renewal Application Due Between November 19, 2014  
November 19, 2014 and November 19, 2015

This Renewable Operating Permit (ROP) is issued in accordance with and subject to Section 5506(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Pursuant to Michigan Air Pollution Control Rule 210(1), this ROP constitutes the permittee's authority to operate the stationary source identified above in accordance with the general conditions, special conditions and attachments contained herein. Operation of the stationary source and all emission units listed in the permit are subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

**SOURCE-WIDE PERMIT TO INSTALL**

Permit Number: MI-PTI-N0929-2011

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(5) of Act 451. Pursuant to Michigan Air Pollution Control Rule 214a, the terms and conditions herein, identified by the underlying applicable requirement citation of Rule 201(1)(a), constitute a federally enforceable PTI. The PTI terms and conditions do not expire and remain in effect unless the criteria of Rule 201(6) are met. Operation of all emission units identified in the PTI is subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

Michigan Department of Natural Resources and Environment

Chris Ethridge, Acting Southeast Michigan District Supervisor

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## AUTHORITY AND ENFORCEABILITY

For the purpose of this permit, the **permittee** is defined as any person who owns or operates an emission unit at a stationary source for which this permit has been issued. The **department** is defined in Rule 104(d) as the Director of the Michigan Department of Natural Resources and Environment (MDNRE) or his or her designee.

The permittee shall comply with all specific details in the permit terms and conditions and the cited underlying applicable requirements. All terms and conditions in this ROP are both federally enforceable and state enforceable unless otherwise footnoted. Certain terms and conditions are applicable to most stationary sources for which an ROP has been issued. These general conditions are included in Part A of this ROP. Other terms and conditions may apply to a specific emission unit, several emission units which are represented as a flexible group, or the entire stationary source which is represented as a source-wide group. Special conditions are identified in Parts B, C, D and/or the appendices.

In accordance with Rule 213(2)(a), all underlying applicable requirements will be identified for each ROP term or condition. All terms and conditions that are included in a PTI, are streamlined or subsumed, or is state only enforceable will be noted as such.

In accordance with Section 5507 of Act 451, the permittee has included in the ROP application a compliance certification, a schedule of compliance, and a compliance plan. For applicable requirements with which the source is in compliance, the source will continue to comply with these requirements. For applicable requirements with which the source is not in compliance, the source will comply with the detailed schedule of compliance requirements that are incorporated as an appendix in this ROP. Furthermore, for any applicable requirements effective after the date of issuance of this ROP, the stationary source will meet the requirements on a timely basis, unless the underlying applicable requirement requires a more detailed schedule of compliance.

Issuance of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

## A. GENERAL CONDITIONS

### Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**
- Those conditions that are hereby incorporated in a state only enforceable Source-wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**
- Those conditions that are hereby incorporated in federally enforceable Source- wide PTI No. MI-PTI-N0929-2011 pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

### General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**
2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**
3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**
4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities **(R 336.1213(1)(d))**:
  - a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
  - c. Inspect, at reasonable times, any of the following:
    - i. Any stationary source.
    - ii. Any emission unit.
    - iii. Any equipment, including monitoring and air pollution control equipment.
    - iv. Any work practices or operations regulated or required under the ROP.
  - d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.
5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq.,

and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**
7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**
8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

## Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**
10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

## Emission Limits

11. Except as provided in Subrules 2, 3, and 4 of Rule 301, states in part; "a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of Rule 301(1)(a) or (b) unless otherwise specified in this ROP." The grading of visible emissions shall be determined in accordance with Rule 303. **(R 336.1301(1) in pertinent part):**
  - a. A 6-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
  - b. A limit specified by an applicable federal new source performance standard.
12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
  - a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.<sup>1</sup> **(R 336.1901(a))**
  - b. Unreasonable interference with the comfortable enjoyment of life and property.<sup>1</sup> **(R 336.1901(b))**

## Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1). **(R 336.2001)**
14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**
15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(4))**

## Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate **(R 336.1213(3)(b))**:
- a. The date, location, time, and method of sampling or measurements.
  - b. The dates the analyses of the samples were performed.
  - c. The company or entity that performed the analyses of the samples.
  - d. The analytical techniques or methods used.
  - e. The results of the analyses.
  - f. The related process operating conditions or parameters that existed at the time of sampling or measurement.
17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

## Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a responsible official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**
19. A responsible official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. **(R 336.1213(4)(c))**
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
- a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
  - b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
  - c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following **(R 336.1213(3)(c))**:
- Submitting a certification by a responsible official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
  - Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a responsible official which states that, "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete". The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.
23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**
24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**
25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a responsible official in a manner consistent with the CAA. **(R 336.1912)**

## Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance, if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
- The applicable requirements are included and are specifically identified in the ROP.
  - The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.
- Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.
27. Nothing in this ROP shall alter or affect any of the following:
- The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
  - The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
  - The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**



- d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**
- 28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
  - a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
  - b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
  - c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
  - d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
  - e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**
- 29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

## Revisions

- 30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**
- 31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**
- 32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(9))**
- 33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

## Reopenings

- 34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
  - a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
  - b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
  - c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
  - d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

## Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(7))**

## Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F.
37. If the permittee is subject to 40 CFR, Part 82, and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

## Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR, Part 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR, Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).
39. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall comply with the requirements of 40 CFR, Part 68, no later than the latest of the following dates as provided in 40 CFR, Part 68.10(a):
- June 21, 1999,
  - Three years after the date on which a regulated substance is first listed under 40 CFR, Part 68.130, or
  - The date on which a regulated substance is first present above a threshold quantity in a process.
40. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR, Part 68.
41. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR, Part 68)**

## Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

**Permit To Install (PTI)**

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.<sup>2</sup> **(R 336.1201(1))**
44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.<sup>2</sup> **(R 336.1201(8), Section 5510 of Act 451)**
45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, MDNRE.<sup>2</sup> **(R 336.1219)**
46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months, or has been interrupted for 18 months, the applicable terms and conditions from that PTI shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, MDNRE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.<sup>2</sup> **(R 336.1201(4))**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## **B. SOURCE-WIDE CONDITIONS**

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

## C. EMISSION UNIT CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

### EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-Plastic Purge & Clean	Use of purge and cleaning solvents within the plastic parts coating operation (EU-Plastic).	2/18/85	FG-Plastic MACT
EU-Stampingshop	Stamping shop operations.	2/18/85	FG-Facility
EU-Phosphate	Pretreatment of the vehicle surface to prepare it for electrocoating	2/18/85	FG-Facility
EU-Ecoat	Electrocoating of vehicle bodies.	2/18/85	FG-Facility, FG-Controls FG-Auto MACT
EU-NGB Adhesives & Sealers	Sealer and adhesive materials used in the body construction processes.	2/18/85	FG-Facility, FG-Auto MACT
EU-Deadeners	Sound deadener material sprayed into body cavity areas of the vehicle.	2/18/85	FG-Facility, FG-Auto MACT
EU-Glass Install	Adhesives, primers, sealers, and solvents used for windshield and rear window installation.	2/18/85	FG-Facility, FG-Auto MACT
EU-Guidecoat	Application of guidecoat coating including anti-chip primer and black out.	2/18/85	FG-Facility, FG-Controls FG-Auto MACT
EU-Topcoat	Application of topcoat coating including tutone/repair.	2/18/85	FG-Facility, FG-Controls FG-Auto MACT
EU-Final Repair	Miscellaneous body coating processes including final repair, transit coating, and spot repair. Spot repair is considered minor paint repairs not conducted in a booth	2/18/85	FG-Facility, FG-Auto MACT
EU-Blackout/Wax	Application of black out and/or wax coatings.	2/18/85	FG-Facility, FG-Auto MACT
EU-Undercoat	Application of undercoat coating.	2/18/85	FG-Facility, FG-Auto MACT
EU-Assembly Purge & Clean	Use of purge and cleaning solvents within the automobile coating and assembly processes.	2/18/85	FG-Facility, FG-Auto MACT
EU-Tanks	Various above ground and underground storage tanks used to store fluids, fuels, and solvents.	2/18/85	FG-Facility, FG-OLD Facility
EU-Fluid Fill	Vehicle fluid and fuel fill operations.	2/18/85	FG-Facility

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-Start Up/Roll Test	After each new vehicle is completely assembled and the fluids are added, it is started and allowed to idle in the vehicle start-up area of the final assembly line. After start up, each vehicle is driven onto a roll test dynamometer where a series of acceleration and deceleration tests are performed.	2/18/85	FG-Facility
EU-Natural Gas	Natural gas burning associated with the automotive assembly and painting operations, excluding plastic parts coating operations. The equipment includes process boilers, space heaters, process ovens, and miscellaneous support equipment installed under this permit.	2/18/85	FG-Facility
EU-Purge	Use of purge solvents.	2/18/85	FG-Auto MACT
EU-Plastic	Coating of plastic parts.	2/18/85	FG-Plastic MACT FG-CAM
EU-Heaters	Heaters and body paint boiler (rated at 14.64 MMBTU/hr)	2/18/85	
EU-Bulbcrusher	One 55-gallon drum-top fluorescent light bulb crusher, controlled by a bag filter followed in series by a HEPA filter and an activated carbon filter.	6/9/10	
EU-Coldcleaners	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	NA	FG-Coldcleaners
EU-Rule287	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 287(c).	NA	FG-Rule287
EU-Rule290	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.	NA	FG-Rule290

## EU-Plastic Purge & Clean EMISSION UNIT CONDITIONS

**DESCRIPTION** Use of purge and cleaning solvents within the plastic parts coating operation (EU-Plastic).

**Flexible Group ID:** FG-Plastic MACT

### **POLLUTION CONTROL EQUIPMENT**

#### **I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	118.2 <sup>2</sup> tpy	12-month rolling time period	EU-Plastic Purge & Clean	SC VI.3	R336.1702(a)

#### **II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

#### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. NA

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. NA

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

- The VOC content, water content and density of any solvent as applied and as received, shall be determined using federal Reference Test Method 24 or an alternative approved by the AQD District Supervisor. Alternatively, the VOC content may be determined from manufacturer's formulation data. If the tested and the formulation values should differ, the tested results shall be used to determine compliance. Upon request of the AQD District Supervisor, the VOC content, water content and density of any material shall be verified using federal Reference Test Method 24<sup>2</sup>. **(R 336.1225, R 336.1702(a), R 336.1901, R 336.2810, 40 CFR 52.21)**

**See Appendix 5**

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

- The permittee shall keep the following information on a monthly basis for EU-Plastic Purge & Clean:
  - Gallons (with water) of each VOC containing purge and clean-up solvent used.
  - Where applicable, gallons (with water) of each VOC containing purge and clean-up solvent reclaimed.

- c. The VOC content (with water) in pounds per gallon of each purge and clean-up solvent used.
- d. VOC mass emission calculations determining the monthly emission rate in tons per calendar month. These calculations shall be done according to the method outlined in Appendix 7.
- e. VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month. These calculations shall be done according to the method outlined in Appendix 7.

The permittee shall keep the records on file, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request.<sup>2</sup> (R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), R 336.1901, R 336.2810, 40 CFR 51.21)

See Appendix 7

## VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

See Appendix 8

## VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. NA	NA	NA	NA

## IX. OTHER REQUIREMENT(S)

1. NA

### Footnotes:

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).



<b>EU-Stamping Shop</b> <b>EMISSION UNIT CONDITIONS</b>
--

**DESCRIPTION**

Stamping shop operations.

Flexible Group ID: FG-Facility

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

See Appendix 5

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

**See Appendix 8**

#### **VIII. STACK/VENT RESTRICTION(S)**

1. The exhaust gases from any portion of EU-STAMPING SHOP shall not be directly discharged to the ambient air at any time.<sup>2</sup> **(R 336.1205, R 336.1224, R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

#### **IX. OTHER REQUIREMENT(S)**

1. NA

#### **Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## EU-Phosphate EMISSION UNIT CONDITIONS

**DESCRIPTION:** Pretreatment of the vehicle surface to prepare it for electrocoating.

**Flexible Group ID:** FG-Facility

### **POLLUTION CONTROL EQUIPMENT**

NA

#### **I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1.NA	NA	NA	NA	NA	NA

#### **II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1.NA	NA	NA	NA	NA	NA

#### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. NA

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. NA

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

**See Appendix 5**

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

#### **VII. REPORTING**

- Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.  
(R 336.1213(4)(c))

See Appendix 8

### VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV345	18 <sup>2</sup>	72 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
2. SV390	20 <sup>2</sup>	70 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
3.SV392	20 <sup>2</sup>	70 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

### IX. OTHER REQUIREMENT(S)

1. NA

#### **Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## EU-Ecoat EMISSION UNIT CONDITIONS

**DESCRIPTION:** Electrocoating of vehicle bodies.

**Flexible Group ID:** FG-Facility, FG-Controls, FG-Auto MACT

**POLLUTION CONTROL EQUIPMENT:** Regenerative thermal oxidizer for the oven.

### **I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. NA

### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate the cure oven portion of EU-ECOAT unless the regenerative thermal oxidizer is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the three regenerative catalytic oxidizers and the one regenerative thermal oxidizer includes maintaining a minimum VOC destruction efficiency of 95 percent or an average control system outlet VOC concentration of less than or equal to 5 ppm as propane.<sup>2</sup> (R 336.1205, R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The VOC content, water content and density of the resin, pigment and additives, as added to the Electrocoat tank, shall be determined using federal Reference Test Method 24. Alternatively, the VOC content, water content and density of the subject materials may be determined from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the Method 24 results shall be used to determine compliance.<sup>2</sup> (R 336.1225, R 336.1702(a), R 336.1901, R 336.2810, 40 CFR 52.21)

See Appendix 5

### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV355	48 <sup>2</sup>	50 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
2. SV389	26 <sup>2</sup>	80 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
3. SV103	108 <sup>2</sup>	120 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENT(S)**

1. NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## EU-NGB Adhesives & Sealers EMISSION UNIT CONDITIONS

**DESCRIPTION**

Sealer and adhesive materials used in the body construction processes.

**Flexible Group ID:** FG-Facility, FG-Auto MACT

**POLLUTION CONTROL EQUIPMENT:** None

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The VOC content of each sealer and adhesive, as applied, shall be determined using federal Reference Test Method 24 at representative time(s) and temperature(s) used to cure the related coating or material in practice as provided by ASTM D2369-98, 1.4 and Note 3. Alternatively, the VOC content may be determined from manufacturer's formulation data. If the tested and the formulation values should differ, the test results shall be used to determine compliance. Upon request of the AQD District Supervisor, the VOC content of each sealer and adhesive shall be verified by testing at owner's expense.<sup>2</sup> (R 336.1225, R 336.1702(a), R 336.1901, R 336.2810, 40 CFR 52.21)

See Appendix 5

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

See Appendix 7

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

1. NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).



## EU-Deadeners EMISSION UNIT CONDITIONS

**DESCRIPTION:** Sound deadener material sprayed into body cavity areas of the vehicle.

**Flexible Group ID:** FG-Facility, FG-Auto MACT

**POLLUTION CONTROL EQUIPMENT:** None

### **I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. NA

### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. NA

### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The VOC content of each sound dampening material, as applied, shall be determined using federal Reference Test Method 24 at representative time(s) and temperature(s) used to cure the related coating or material in practice as provided by ASTM D2369-98, 1.4 and Note 3. Alternatively, the VOC content may be determined from manufacturer's formulation data. If the tested and the formulation values should differ, the tested results shall be used to determine compliance. Upon request of the AQD District Supervisor, the VOC content, water content and density of any coating or material shall be verified using federal Reference Test Method 24.<sup>2</sup> (R 336.1225, R 336.1702(a), R 336.1901, R 336.2810, 40 CFR 52.21)

See Appendix 5

### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

### **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

#### **VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. NA	NA	NA	NA

#### **IX. OTHER REQUIREMENT(S)**

1. NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## EU-Glass Install EMISSION UNIT CONDITIONS

**DESCRIPTION:** Adhesives, primers, sealers and solvents used for windshield and rear window installation.

**Flexible Group ID:** FG-Facility, FG-Auto MACT

**POLLUTION CONTROL EQUIPMENT:** None

### **I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. NA

### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. NA

### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The VOC content of each glass adhesive material, as applied, shall be determined using federal Reference Test Method 24 at representative time(s) and temperature(s) used to cure the related coating or material in practice as provided by ASTM D2369-98, 1.4 and Note 3. Alternatively, the VOC content may be determined from manufacturer's formulation data. If the tested and the formulation values should differ, the tested results shall be used to determine compliance. Upon request of the AQD District Supervisor, the VOC content, water content and density of any coating or material shall be verified using federal Reference Test Method 24.<sup>2</sup> (R 336.1225, R 336.1702(a), R 336.1901, R 336.2810, 40 CFR 52.21)

See Appendix 5

### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

### **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

### **VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV601	25 <sup>2</sup>	34 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
2. SV602	25 <sup>2</sup>	34 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
3. SV603	20 <sup>2</sup>	34 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
4. SV604	20 <sup>2</sup>	34 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

### **IX. OTHER REQUIREMENT(S)**

1. NA

#### **Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## EU-Guidecoat EMISSION UNIT CONDITIONS

### **DESCRIPTION**

Application of guidecoat coating including anti-chip primer, undercoating and black-out.

**Flexible Group ID:** FG-Facility, FG-Controls, FG-Auto MACT

**POLLUTION CONTROL EQUIPMENT:** A waterwash system, three regenerative catalytic oxidizers and one regenerative thermal oxidizer.

### **I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1.NA	NA	NA	NA	NA	NA

### **II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. NA

### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate any portion of EU-GUIDECOAT unless the three regenerative catalytic oxidizers and the one regenerative thermal oxidizer are all installed, maintained and operated in a satisfactory manner. Satisfactory operation of the catalytic and thermal oxidizers includes maintaining a minimum VOC destruction efficiency of 95 percent or an average control system outlet VOC concentration of less than or equal to 5 ppm as propane.<sup>2</sup> (R 336.1205, R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))
2. The permittee shall not operate the spray booth portions of EU-GUIDECOAT unless the water wash particulate controls are installed, maintained and operated in a satisfactory manner. Satisfactory operation of the water wash particulate controls includes conducting the required monitoring and recordkeeping pursuant to FG-FACILITY, SC VI. 2.<sup>2</sup> (R 336.1205, R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The VOC content of any coating or material as applied or as received shall be determined using federal Reference Test Method 24 and formulation data as specified in the USEPA "Protocol for Determining the Daily Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," September 2008, EPA 453/R-08-002, as amended. Upon request of the AQD District Supervisor, the analytical VOC content, as received, of each non-waterborne coating shall be verified by testing at owner's expense.<sup>2</sup> (R 336.1225, R 336.1702(a), R 336.1901, R 336.2810, 40 CFR 52.21, 40 CFR 60 Subpart MM)

See Appendix 5

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. NA

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV304	48 <sup>2</sup>	92 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
2. SV305	59 <sup>2</sup>	92 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
3. SV306	59 <sup>2</sup>	92 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
4. SV307	21 <sup>2</sup>	92 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
5. SV308	58 <sup>2</sup>	92 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
6. SV309	58 <sup>2</sup>	92 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
7. SV313	64 <sup>2</sup>	92 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
8. SV101	108 <sup>2</sup>	120 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
9. SV102	108 <sup>2</sup>	120 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
10. SV103	108 <sup>2</sup>	120 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

#### IX. OTHER REQUIREMENT(S)

- The permittee shall comply with all applicable provisions of the federal standards of Performance for New Stationary Sources, 40 CFR, Part 60, Subpart A & MM. **(R336.1213(3))**

#### **Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## EU-Topcoat EMISSION UNIT CONDITIONS

**DESCRIPTION:** Application of topcoat coating, including tune/repair.

**Flexible Group ID:** FG-Facility, FG-Controls, FG-Auto MACT

**POLLUTION CONTROL EQUIPMENT:** A waterwash system, three regenerative catalytic oxidizers, and one regenerative thermal oxidizer.

### **I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. NA

### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate any portion of EU-TOPCOAT unless the appropriate portions of the three regenerative catalytic oxidizers and the one regenerative thermal oxidizer are all installed, maintained and operated in a satisfactory manner. Satisfactory operation of the catalytic and thermal oxidizers includes maintaining a minimum VOC destruction efficiency of 95 percent or an average control system outlet VOC concentration of less than or equal to 5 ppm as propane.<sup>2</sup> (R 336.1205, R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))
2. The permittee shall not operate the spray booth portions of EU-TOPCOAT unless the water wash particulate controls are installed, maintained and operated in a satisfactory manner. Satisfactory operation of the water wash particulate controls includes conducting the required monitoring and recordkeeping pursuant to FG-FACILITY, SC VI. 2.<sup>2</sup> (R 336.1205, R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The VOC content of any coating or material as applied or as received shall be determined using federal Reference Test Method 24 and formulation data as specified in the USEPA "Protocol for Determining the Daily Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," September 2008, EPA 453/R-08-002, as amended. Upon request of the AQD District Supervisor, the analytical VOC content, as received, of each non-waterborne coating shall be verified by testing at owner's expense.<sup>2</sup> (R 336.1225, R 336.1702(a), R 336.1901, R 336.2810, 40 CFR 52.21, 40 CFR 60 Subpart MM)

See Appendix 5



**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV321	64 <sup>2</sup>	92 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
2. SV322	64 <sup>2</sup>	92 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
3. SV331	64 <sup>2</sup>	92 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
4. SV332	54 <sup>2</sup>	92 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d) R336.1901
5. SV335	62 <sup>2</sup>	92 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
6. SV336	62 <sup>2</sup>	92 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)R336.1901
7. SV337	62 <sup>2</sup>	92 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)R336.1901
8. SV338	62 <sup>2</sup>	92 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
9. SV339	38 <sup>2</sup>	92 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
10. SV344	54 <sup>2</sup>	83 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)R336.1901
11. SV101	108 <sup>2</sup>	120 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
12. SV102	108 <sup>2</sup>	120 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
13. SV103	108 <sup>2</sup>	120 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENT(S)**

1. NA

**Footnotes:**<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## EU-Final Repair EMISSION UNIT CONDITIONS

**DESCRIPTION:** Miscellaneous body coating processes including final repair, transit coating, and spot repair. Spot repair is considered minor paint repairs not conducted in a booth.

**Flexible Group ID:** FG-Facility, FG-Auto MACT

**POLLUTION CONTROL EQUIPMENT:** Dry filter particulate controls

### **I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. NA

### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate EU-FINALREPAIR unless the dry filter particulate controls are installed, maintained and operated in a satisfactory manner. Satisfactory operation of the dry filter particulate controls includes conducting the required monitoring and recordkeeping pursuant to FG-FACILITY, SC VI. 2.<sup>2</sup> (R 336.1205, R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The VOC content, water content and density of any coating as applied and as received, shall be determined using federal Reference Test Method 24 or an alternative approved by the AQD District Supervisor. Alternatively, the VOC content may be determined from manufacturer's formulation data. If the tested and the formulation values should differ, the tested results shall be used to determine compliance. Upon request of the AQD District Supervisor, the VOC content, water content and density of any sealer and adhesive shall be verified using federal Reference Test Method 24.<sup>2</sup> (R 336.1225, R 336.1702(a), R 336.1901, R 336.2810, 40 CFR 52.21)

See Appendix 5

### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV399	34 <sup>2</sup>	42 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
2. SV400	34 <sup>2</sup>	42 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
3. SV403	34 <sup>2</sup>	43 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
4. SV404	34 <sup>2</sup>	43 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENT(S)**

1. NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## EU-Blackout/Wax EMISSION UNIT CONDITIONS

**DESCRIPTION:** Application of black out and/or wax coatings.

**Flexible Group ID:** FG-Facility, FG-Auto MACT

**POLLUTION CONTROL EQUIPMENT:** Dry Filter Particulate Controls

### **I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. NA

### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate EU-BLACKOUT unless the dry filter particulate controls are installed, maintained and operated in a satisfactory manner. Satisfactory operation of the dry filter particulate controls includes conducting the required monitoring and recordkeeping pursuant to FG-FACILITY, SC VI. 2.<sup>2</sup> (R 336.1205, R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The VOC content of any coating or material as applied or as received shall be determined using federal Reference Test Method 24 and formulation data as specified in the USEPA "Protocol for Determining the Daily Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," September 2008, EPA 453/R-08-002, as amended. Upon request of the AQD District Supervisor, the analytical VOC content, as received, of each non-waterborne coating shall be verified by testing at owner's expense.<sup>2</sup> (R 336.1225, R 336.1702(a), R 336.1901, R 336.2810, 40 CFR 52.21, 40 CFR 60 Subpart MM)

See Appendix 5

### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV341	62 <sup>2</sup>	83 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
2. SV342	62 <sup>2</sup>	83 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENT(S)**

1. NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## EU-Undercoat EMISSION UNIT CONDITIONS

**DESCRIPTION:** Application of undercoat coating

**Flexible Group ID:** FG-Facility, FG-Auto MACT

**POLLUTION CONTROL EQUIPMENT:** Dry Filter Particulate Controls

### **I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. NA

### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate EU-UNDERCOAT unless the dry filter particulate controls are installed, maintained and operated in a satisfactory manner. Satisfactory operation of the dry filter particulate controls includes conducting the required monitoring and recordkeeping pursuant to FG-FACILITY, SC VI. 2.<sup>2</sup> (R 336.1205, R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The VOC content of any coating or material as applied or as received shall be determined using federal Reference Test Method 24 and formulation data as specified in the USEPA "Protocol for Determining the Daily Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," September 2008, EPA 453/R-08-002, as amended. Upon request of the AQD District Supervisor, the analytical VOC content, as received, of each non-waterborne coating shall be verified by testing at owner's expense.<sup>2</sup> (R 336.1225, R 336.1702(a), R 336.1901, R 336.2810, 40 CFR 52.21, 40 CFR 60 Subpart MM)

See Appendix 5

### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV301	47	92	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
2. SV302	47	92	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
3. SV303	23	92	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENT(S)**

1. NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).



## EU-Assembly Purge & Clean EMISSION UNIT CONDITIONS

**DESCRIPTION:** Use of purge solvents with the automobile coating and assembly processes.

**Flexible Group ID:** FG-Facility, FG-Auto MACT

**POLLUTION CONTROL EQUIPMENT:** None

### **I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. NA

### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. NA

### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The VOC content, water content and density of any solvent as applied and as received, shall be determined using federal Reference Test Method 24 or an alternative approved by the AQD District Supervisor. Alternatively, the VOC content may be determined from manufacturer's formulation data. If the tested and the formulation values should differ, the tested results shall be used to determine compliance. Upon request of the AQD District Supervisor, the VOC content, water content and density of any material shall be verified using federal Reference Test Method 24.<sup>2</sup> (R 336.1225, R 336.1702(a), R 336.1901, R 336.2810, 40 CFR 52.21)

See Appendix 5

### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

See Appendix 7

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

1. NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## EU-Tanks EMISSION UNIT CONDITIONS

**DESCRIPTION:** Various above ground and underground storage tanks used to store fluids, fuels, and solvents.

**Flexible Group ID:** FG-Facility, FG-Old Facility

**POLLUTION CONTROL EQUIPMENT:** None

### **I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. NA

### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. NA

### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

### **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

See Appendix 8

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

1. NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## EU-Fluid Fill EMISSION UNIT CONDITIONS

**DESCRIPTION:** Vehicle fluid and fuel fill operations

**Flexible Group ID:** FG-Facility

**POLLUTION CONTROL EQUIPMENT:** Onboard vapor recovery system.

### **I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not add fuel to any vehicle without an Onboard Re-fueling Vapor Recovery system unless the VOC emissions from the fuel filling process are controlled by a VOC control device, which achieves a minimum of 95% (by weight) destruction efficiency.<sup>2</sup> (R 336.1225, R 336.1702(a), R 336.1901, R 336.1910, R 336.2810, 40 CFR 52.21)

### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. NA

### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

### **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.  
**(R 336.1213(4)(c))**

See Appendix 8

#### **VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. NA	NA	NA	NA

#### **IX. OTHER REQUIREMENT(S)**

1. NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## EU-Start Up/Roll Test EMISSION UNIT CONDITIONS

**DESCRIPTION**

After each new vehicle is completely assembled and the fluids are added, it is started and allowed to idle in the vehicle start-up area of the final assembly line. After start up, each vehicle is driven onto a roll test dynamometer where a series of acceleration and deceleration tests are performed.

**Flexible Group ID:** FG-Facility

**POLLUTION CONTROL EQUIPMENT:** None

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.  
(R 336.1213(4)(c))

See Appendix 8

### VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV610	32 <sup>2</sup>	55 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
2. SV611	42 X 42 <sup>2</sup>	55 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
3. SV612	42 X 42 <sup>2</sup>	55 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
4. SV613	42 X 42 <sup>2</sup>	55 <sup>2</sup>	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

### IX. OTHER REQUIREMENT(S)

1. NA

#### **Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).



## EU-Natural Gas EMISSION UNIT CONDITIONS

**DESCRIPTION:** Natural gas burning associated with the automotive assembly and painting operations, excluding plastic parts coating operations. The equipment includes process boilers, space heaters, process ovens, and miscellaneous support equipment installed under this permit.

**Flexible Group ID:** FG-Facility

**POLLUTION CONTROL EQUIPMENT:** None

### **I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. NA

### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. NA

### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. NA

### **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.  
**(R 336.1213(4)(c))**

**See Appendix 8**

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

1. NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## EU-Plastic EMISSION UNIT CONDITIONS

**DESCRIPTION**

Coating of plastic parts.

**Flexible Group ID:** FG-Plastic MACT, FG-CAM**POLLUTION CONTROL EQUIPMENT**

Thermal oxidizer, water wash system.

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	515.8 lbs <sup>2</sup>	Hour	EU-Plastic	GC 13 SC VI.2	R336.1702(c)
2. VOC	700.78 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month.	EU-Plastic	SC VI.2	R336.1702(c)
3. PM	5.5 lbs <sup>2</sup>	Test Protocol	EU-Plastic	GC 13 SC VI.3	R336.1331(c)
4. PM	7.69 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month.	EU-Plastic	SC VI.3	R336.1331(c)

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	Lb/gal (minus water) as applied and as referenced in Rule 632, Table 66 for automotive plastic parts <sup>2</sup>	Instantaneous	EU-Plastic	SC VI.2	R336.1632(3)(a)

\*The phrase "minus water" shall also include compounds which are used as organic solvents and which are excluded from the definition of volatile organic compound. (R336.1602(4))

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate the plastic crusher portion of EU-Plastic unless the mechanical collector is installed and operating in a satisfactory manner.<sup>2</sup> (R 336.1910)

2. The permittee shall not operate the coating spray booths portions of EU-Plastic unless the water wash equipment is installed and operating in a satisfactory manner.<sup>2</sup> **(R 336.1910)**
3. The permittee shall not operate the oven portions of EU-Plastic unless the associated thermal oxidizers are installed, maintained and operated in a satisfactory manner. Satisfactory operation of the thermal oxidizer includes maintaining a minimum combustion chamber temperature of 1400°F and a minimum retention time of 0.5 seconds. In lieu of a minimum temperature, the permittee may use an average temperature of 1400°F based upon a three-hour rolling average.<sup>2</sup> **(R 336.1910)**

## **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The VOC content, water content and density of any coating or material as applied and as received, shall be determined using federal Reference Test Method 24 or an alternative approved by the AQD District Supervisor. Alternatively, the VOC content may be determined from manufacturer's formulation data. If the tested and the formulation values should differ, the tested results shall be used to determine compliance. Upon request of the AQD District Supervisor, the VOC content, water content and density of any coating or material shall be verified using federal Reference Test Method 24.<sup>2</sup> **(R 336.2040(5))**

**See Appendix 5**

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device, with temperature alarms and a temperature recording device, in the combustion chamber of each thermal oxidizer to monitor and record its temperature on a continuous basis, during operation of EU-Plastic. A temperature alarm shall sound when any thermal oxidizer temperature drops below 1400°F. Continuous is defined as a minimum of one temperature reading/recording once every 15 minutes.<sup>2</sup> **(R 336.1910)**
2. The permittee shall keep the following information on a calendar month basis for the EU-Plastic:
  - a. Gallons (with water) of each coating used.
  - b. VOC content (minus water) of each coating as applied.
  - c. If any coating is used on a given day that does not meet the limit specified in Special Condition II.1 for its category, VOC emission calculations determining the daily volume-weighted average VOC content of all coatings in that category, as applied, shall be conducted for that day.
  - d. VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
  - e. VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request.<sup>2</sup> **(R 336.1632, R 336.2040(5), R 336.2041)**

3. The permittee shall monitor the condition of the water wash system through weekly visual inspections or through the use of low flow alarms on water pumps that feed the system with records of the dates of the low flow alarms and the dates and reasons for maintenance or repairs. All records shall be kept on file for a period of at least five years and made available to the Department upon request.<sup>2</sup> **(R336.1213(3))**

**See Appendix 7**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Quarterly reporting of all the material usage data within 30 days following the end of the quarter in which the data were collected. **(R336.1213(3))**

See Appendix 8

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV510	15 <sup>1</sup>	81 <sup>1</sup>	R336.1901
2. SV516	15 <sup>1</sup>	81 <sup>1</sup>	R336.1901
3. SV519	35 <sup>1</sup>	81 <sup>1</sup>	R336.1901
4. SV526	15 <sup>1</sup>	81 <sup>1</sup>	R336.1901
5. SVTALL	156 <sup>1</sup>	198 <sup>1</sup>	R336.1901

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with all applicable provisions of Michigan Air Pollution Control Rule 632. **(R336.1632)**

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## EU-Bulbcrusher EMISSION UNIT CONDITIONS

### **DESCRIPTION**

One 55-gallon drum-top fluorescent light bulb crusher, controlled by a bag filter followed in series by a HEPA filter and an activated carbon filter.

**Flexible Group ID:**

### **POLLUTION CONTROL EQUIPMENT**

Drum-top crusher is controlled by a bag filter followed in series by a HEPA filter and an activated carbon filter.

### **I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

### **II. MATERIAL LIMIT(S)**

1. The permittee shall not crush more than the equivalent of 150 eight-foot fluorescent light bulbs in EU-BULBCRUSHER per calendar day.<sup>1</sup> **(R 336.1224, R 336.1901)**
2. The permittee shall not crush more than the equivalent of 3000 eight-foot fluorescent light bulbs in EU-BULBCRUSHER per 12-month rolling time period.<sup>1</sup> **(R 336.1224, R 336.1901)**

### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. EU-BULBCRUSHER shall be installed, maintained, and operated in a satisfactory manner to minimize emissions to the ambient air. Recommended Best Management Practices for Drum-top Crushers and Recommended Best Management Practices for Lamp Handling & Storage are specified in Appendices 1 and 2.<sup>1</sup> **(R 336.1224, R 336.1910)**
2. The permittee shall maintain and operate EU-BULBCRUSHER according to the manufacturer's specifications and procedures.<sup>2</sup> **(R 336.1224, R 336.1901, R 336.1910)**
3. EU-BULBCRUSHER shall be located a minimum of 50 feet from the property line; 300 feet from any existing places of residence or private or public assembly; 500 feet from a school, apartment building, or institutional occupancy; and not less than 1000 feet from a hospital or nursing home. **(R 336.1901)**
4. The permittee shall minimize the time necessary to change-out the 55-gallon drum portion of EU-BULBCRUSHER. All drum change-outs shall be performed according to the manufacturer's specifications and procedures.<sup>1</sup> **(R 336.1224, R 336.1901)**
5. The permittee shall completely replace the carbon within the activated carbon filter or replace the entire activated carbon filter, a minimum of once every two calendar years. Alternatively, the permittee may demonstrate at the end of two years, and at least once per year thereafter, that the activated carbon filter is still effective.<sup>1</sup> **(R 336.1224, R 336.1901)**
6. All broken glass and metal pieces collected in the 55-gallon drum portion of EU-BULBCRUSHER shall be properly handled, transported, and disposed of in accordance with all applicable State rules and federal regulations.<sup>1</sup> **(R 336.1224, R 336.1901)**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate EU-BULBCRUSHER unless the bag filter followed in series by a HEPA filter and an activated carbon filter are installed, maintained, and operated in a satisfactory manner.<sup>2</sup> **(R 336.1224, R 336.1901, R 336.1910)**
2. The permittee shall not operate EU-BULBCRUSHER with a warped drum that prevents the crushing unit from sealing flush with the drum top. The permittee shall verify that the seal between the crusher unit and the drum is tight before each use, according to manufacturer's recommended procedures.<sup>1</sup> **(R 336.1224, R 336.1901)**
3. The permittee shall seal the feed chute of EU-BULBCRUSHER with a cap or other similar device whenever the unit is not in use.<sup>1</sup> **(R 336.1224, R 336.1901)**

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. If the activated carbon filter or the carbon within the filter is not replaced at the end of two calendar years, the permittee shall demonstrate, to the satisfaction of the AQD, the effectiveness of the activated carbon filter. If control device destruction efficiency testing is required in order to complete this demonstration, the permittee shall submit to the AQD a methodology outlining how the testing will be performed, no less than 60 days prior to completing the demonstration. The AQD must approve the testing methodology prior to completing the demonstration. Submittal of a complete report of the demonstration results shall be submitted to the AQD within 60 days following the last date of the demonstration.<sup>2</sup> **(R 336.1224, R 336.2001, R 336.2003, R 336.2004)**

See Appendix 5

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep the following information on a monthly basis for EU-BULBCRUSHER:
  - a. The number and size of fluorescent light bulbs crushed per calendar day.
  - b. The number and size of fluorescent light bulbs crushed per calendar month.
  - c. The number and size of fluorescent light bulbs crushed per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records in the format specified in Appendix 3.<sup>1</sup> **(R 336.1224, R 336.1901)**

2. The permittee shall keep, in a satisfactory manner, records indicating when the HEPA filter, the carbon or the entire activated carbon filter was replaced.<sup>1</sup> **(R 336.1224, R 336.1901)**
3. The permittee shall keep, in a satisfactory manner, transportation, and disposal records of all broken glass and metal pieces collected in the 55-gallon drum portion of EU-BULBCRUSHER.<sup>1</sup> **(R 336.1224, R 336.1901)**
4. The permittee shall monitor and record, in a satisfactory manner, the room temperature, on an hourly basis, while EU-BULBCRUSHER is operating. The permittee shall keep all records on file at the facility and make them available to the Department upon request.<sup>1</sup> **(R 336.1224, R 336.1901)**

See Appendix 7

#### **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

**See Appendix 8**

#### **VIII. STACK/VENT RESTRICTION(S)**

1. The exhaust gases from EU-BULBCRUSHER shall not be directly discharged to the ambient air at any time.<sup>1</sup>  
**(R 336.1224, R 336.1901)**

#### **IX. OTHER REQUIREMENT(S)**

1. NA

#### **Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).



## D. FLEXIBLE GROUP CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

### FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-Facility	This flexible group covers equipment used for automotive assembly and painting operations, excluding plastic parts coating operations, for the AutoAlliance International Assembly Plant.	All emission units (including EU-PHOSPHATE, EU-ECOAT, EU-NGB ADHESIVES & SEALERS, EU-DEADENERS, EU-GLASS INSTALL, EU-GUIDECOAT, EU-TOPCOAT, EU-FINAL REPAIR, EU-BLACKOUT/WAX, EU-UNDERCOAT, EU-ASSEMBLY PURGE & CLEAN, EU-TANKS, EU-FLUID FILL, EU-START-UP/ROLL TEST, and EU-NATURAL GAS) and flexible groups associated with the automotive assembly and painting operations. This includes all clean-up and purge activities associated with automobile painting and assembly operations, storage tanks, and paint sludge handling and disposal operations.
FG-Controls	Three regenerative catalytic oxidizers and one regenerative thermal oxidizer used for control of VOC emissions from the electrocoat system, the paint spray booths, and curing ovens.	EU-Ecoat, EU-Guidecoat, EU-Topcoat

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-Auto MACT	Each new, reconstructed, or existing affected source as defined in Title 40 of the Code of Federal Regulations (CFR), Part 63.3082, that is located at a facility which applies topcoat to new automobile or new light duty truck bodies or body parts for new automobiles or new light duty trucks; AND/OR in which you choose to include, pursuant to 40 CFR 63.3082(c), any coating operations which apply coatings to new other motor vehicle bodies or body parts for new other motor vehicles; parts intended for use in new automobiles, new light duty trucks or new other motor vehicles; or aftermarket repair or replacement parts for automobiles, light duty trucks or other motor vehicles; and that is a major source, is located at a major source, or is part of a major source of emissions of hazardous air pollutants (HAPs) except as provided in 63.3081(c). This includes equipment covered by other permits, grandfathered equipment, and exempt equipment.	EU-Ecoat, EU-NGB Adhesives & Sealers, EU-Deadeners, EU-Glass Install EU-Guidecoat, EU-Topcoat, EU-Final Repair, EU-Blackout/Wax, EU-Undercoat, EU-Assembly Purge & Clean
FG-OLD Facility	Organic Liquid Distribution (OLD) (non-gasoline) operations at major sources of HAP emissions. Specifically, these conditions cover existing (construction pre dates April 2, 2002) liquid storage tanks which hold more than 5,000 gallons but less than 50,000 gallons and/or new liquid storage tanks which hold more than 5,000 gallons but less than 10,000 gallons of methanol/windshield washer fill solvents that are dispensed to newly assembled vehicles.	EU-Final Assembly
FG-Plastic MACT	Each new, reconstructed, and existing affected source engaged in the surface coating of plastic parts and products, identified within each of the four subcategories listed in 40 CFR, Part 63, Subpart PPPP, 63.4481(a)(2) to (5). Surface coating is defined by 40 CFR 63.4481 as the application of coating to a substrate using, for example, spray guns or dip tanks. Surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage if they are directly related to the application of the coating.	EU-Plastic and EU-Plastic Purge & Clean
FG-Cold Cleaners	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	EU-Cold cleaners
FG-Rule287(c)	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 287(c).	EU-Rule287(c)
FG-Rule290	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.	EU-Rule290

## FG-Facility FLEXIBLE GROUP CONDITIONS

### **DESCRIPTION**

This flexible group covers equipment used for automotive assembly and painting operations, excluding plastic parts coating operations, for the AutoAlliance International Assembly Plant.

**Emission Units:** All emission units (including EU-PHOSPHATE, EU-ECOAT, EU-NGB ADHESIVES & SEALERS, EU-DEADENERS, EU-GLASS INSTALL, EU-GUIDECOAT, EU-TOPCOAT, EU-FINAL REPAIR, EU-BLACKOUT/WAX, EU-UNDERCOAT, EU-ASSEMBLY PURGE & CLEAN, EU-TANKS, EU-FLUID FILL, EU-START-UP/ROLL TEST, and EU-NATURAL GAS) and flexible groups associated with the automotive assembly and painting operations. This includes all clean-up and purge activities associated with automobile painting and assembly operations, storage tanks, and paint sludge handling and disposal operations.

### **POLLUTION CONTROL EQUIPMENT**

Three regenerative catalytic oxidizers and one regenerative thermal oxidizer used for control of VOC emissions from the electrocoat system, the paint spray booths, and curing ovens. Particulate emissions are controlled by a waterwash system on the guidecoat spray booths and the topcoat spray booths. Particulate emissions are controlled by dry filters on the final repair spray booths, the blackout and wax booth, and the undercoat booth.

### **I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	732.0 <sup>2</sup> tpy	12-month rolling time period as determined at the end of each calendar month	FG-FACILITY	SC VI.1	R 336.1225, R 336.1702(a) R 336.1901
2. VOC	4.8 <sup>2</sup> pounds per job	12-month rolling time period as determined at the end of each calendar month	FG-FACILITY	SC VI.1	R 336.1225, R 336.1702(a) R 336.1901
3. PM-10*	73.0 <sup>2</sup> tpy	12-month rolling time period as determined at the end of each calendar month	FG-FACILITY	SC VI.1	R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
4. PM-2.5**	73.0 <sup>2</sup> tpy	12-month rolling time period as determined at the end of each calendar month	FG-FACILITY	SC VI.1	R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
5. NOx	102.4 <sup>2</sup> tpy	12-month rolling time period as determined at the end of each calendar month	FG-FACILITY	SC VI.1	R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

\*This includes PM-10 from all natural gas combustion in the non-plastic parts painting operations (including the oxidizers) and the assembly operations, all scuff booths, and the paint spray booth portions of EU-GUIDECOAT, EU-TOPCOAT, EU-FINAL REPAIR.

\*\*This includes PM-2.5 from all natural gas combustion in the non-plastic parts painting operations (including the oxidizers) and the assembly operations, all scuff booths, and the paint spray booth portions of EU-GUIDECOAT, EU-TOPCOAT, EU-FINAL REPAIR.

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Natural Gas	1995 <sup>2</sup> MM cubic feet per year*	12-month rolling time period as determined at the end of each calendar month	FG-FACILITY	SC VI.1	R336.1205(1)(a)

\*Total natural gas usage for the painting operations (including the oxidizers) and the assembly operations combined.

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall equip and maintain each spray coating booth and scuff booth operation with one of the following: water wash particulate controls, dry filter particulate controls, or equivalent particulate control technology.<sup>2</sup> (R 336.1301, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. Verification of the control equipment VOC Loading rates from EU-ECOAT, EU-GUIDECOAT, and E-TOPCOAT by testing, at owner's expense, is required according to the following schedule:
  - a. Within 180 days of issuance of this permit if a Control Device VOC Loading test has not been conducted within the previous 5 years, unless the Permittee has submitted an acceptable demonstration that the most recent acceptable test remains valid and representative.
  - b. Within 180 days of making any changes in operating conditions which necessitate reevaluation of the Control Device VOC Loading rates.

Verification of Control Device VOC Loading rates includes the submittal of a complete report of the test results. No less than 30 days prior to testing, a complete testing plan shall be submitted to the AQD District Supervisor. This testing plan must be approved by the Department prior to testing. A complete report of test results must be submitted to the District Supervisor within 60 days following the testing.<sup>2</sup> (R 336.1225, R 336.1702(a), R 336.1910, R336.2001, R336.2003, R336.2004, R 336.2810, 40 CFR 52.21)

2. Within 180 days of issuance of permit to install 138-10 (138-10 was issued November 23, 2010) and annually each year after, verification of the VOC emission rate and the system-wide destruction efficiency of the control system made up of three regenerative catalytic oxidizers and one regenerative thermal oxidizer, by testing at owner's expense, in accordance with Department requirements will be required. No less than 30 days prior to testing, a complete testing plan shall be submitted to the AQD District Supervisor. This testing plan must be approved by the Department prior to testing. A complete report of test results must be submitted to the District Supervisor within 30 days following the testing. The testing frequency may be altered with prior written approval of the AQD District Supervisor.<sup>2</sup> (R 336.1225, R 336.1702(a), R 336.1910, R336.2001, R336.2003, R336.2004, R 336.2810, 40 CFR 52.21)
3. Within 180 days of issuance of permit to install 138-10 (138-10 was issued November 23, 2010), verification of the overall transfer efficiency of one representative Guidecoat Booth spray zone, one representative Basecoat Booth spray zone, and one representative Clearcoat Booth spray zone, by in-plant testing at owner's expense

will be required. No less than 60 days prior to testing, a complete testing plan shall be submitted to the AQD District Supervisor. This testing plan must be approved by the Department prior to testing. A complete report of test results must be submitted to the District Supervisor within 60 days following the testing. In lieu of completing the transfer efficiency testing required by this condition, the permittee may provide an acceptable demonstration to the AQD District Supervisor the most recent transfer efficiency testing done at the facility remains valid and representative.<sup>2</sup> **(R 336.1225, R 336.1702(a), R 336.1910, R 336.2001, R 336.2003, R336.2004, R 336.2810, 40 CFR 52.21)**

4. Within 365 days of issuance of permit to install 138-10 (138-10 was issued November 23, 2010), the permittee shall verify PM-10 emission rates from one representative Guidecoat Booth spray zone, one representative Basecoat Booth spray zone, one representative Clearcoat Booth spray zone, and one representative Final Repair spray booth by testing at owner's expense, in accordance with Department requirements. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.<sup>2</sup> **(R 336.1301, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

## See Appendix 5

### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep the following records/calculations in a format acceptable to the AQD District Supervisor. The permittee shall compile all required records and complete all required calculations and make them available within 30 days following the end of each calendar month for which records are required to be kept.
  - a. For each material used in FG-FACILITY:
    - i. Material identification;
    - ii. Material VOC content; and,
    - iii. Material usage.
  - b. Number of jobs each calendar month, where a job is defined as a painted vehicle leaving the assembly line (saleable vehicle).
  - c. Calculations showing the FG-FACILITY monthly and annual mass VOC emission rates, in tons per month and tons per 12-month rolling time period, as determined at the end of each calendar month. Calculations must show the capture and control efficiency of each control device used. Calculations must also include a sample calculation based on the production of a single job and that specifies all measured or assumed process parameters (e.g., transfer, capture and control efficiencies, booth splits, etc.) and VOC emissions due to natural gas combustion. Prior to the initial testing, for each controlled section, the design combined capture and control efficiency may be used. Thereafter, values no greater than the most recently tested values may be used.
  - d. Calculations showing the VOC emission rate (lb/job) on a 12-month rolling basis, as determined at the end of each calendar month for the equipment covered by FG-FACILITY.
  - e. Calculations showing the PM-10 mass emission rate in tons on a monthly and 12-month rolling time period, as determined at the end of each calendar month for the equipment in FG-FACILITY after the testing required in FG-FACILITY SC V.3 is completed to develop PM-10 emission factors.
  - f. Records of the total natural gas used in FG-FACILITY during each calendar month and 12-month rolling time period, in cubic feet.
  - g. Calculations showing the NOx mass emission rate in tons on a monthly and 12-month rolling time period, as determined at the end of each calendar month for the equipment in FG-FACILITY.
  - h. Hours of operation for each calendar month and 12-month rolling time period.

All records/calculations shall be kept on file and made available to the Department upon request.<sup>2</sup>  
**(R 336.1225, R 336.1702(a), R 336.1901, R 336.2810, 40 CFR 52.21)**

2. The permittee shall monitor the condition of each particulate control system through weekly visual inspections of each guidecoat, basecoat and clearcoat spraybooth and monthly visual inspections of each final repair spray booth and scuff booth. Alternatively, the use of low flow alarms on water pumps that feed water wash systems may be used on those systems. The permittee shall keep records of visual inspections of each particulate control system and/or the low flow alarms, which include the dates and results of the inspections or alarms and the dates and reasons for resulting repairs. All records shall be kept on file and made available to the Department upon request.<sup>2</sup> (R 336.1301, R 336.1331, R 336.1901, R 336.910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))
3. The permittee shall maintain a record of modifications to any add-on control equipment including any testing and monitoring to demonstrate satisfactory operation upon which compliance with any of the emission limits in FG-FACILITY, SC I.1, 2, 3, and 4 depends.<sup>2</sup> (R 336.1225, R 336.1301, R 336.1331, R 336.1702(a), R 336.1901, R 336.1910, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21)

## **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.<sup>2</sup> (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.<sup>2</sup> (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.<sup>2</sup> (R 336.1213(4)(c))
4. For each emission unit (EU) and flexible group (FG) included in this permit, the permittee shall submit to the AQD District Supervisor, in an acceptable format, within 30 days following the end of the quarter in which the data was collected, the actual VOC, PM-10, and NOx emission rates for each limit included in the permit. The submittal of PM-10 emissions is not required until after the testing required in FG-FACILITY SC V.3 to develop PM-10 emission factors is completed.<sup>2</sup> (R 336.1205, R 336.1702(a), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21)
5. The permittee shall notify the AQD District Supervisor, in writing, of projects authorized by FG-FACILITY SC IX.3 and 4 at least 30 days prior to initialization of the activity. The notification shall include, at a minimum, a description of the type of project and any changes in testing, monitoring, recordkeeping or other compliance evaluation activities.<sup>2</sup> (R 336.1201)

See Appendix 8

## **VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

1. This permit covers automotive assembly and painting operations for the AutoAlliance International Assembly Plant. Changes to these operations or replacement with a different process type are subject to the requirements of R 336.1201, except as disallowed by R 336.1278 or as allowed by R 336.1279 through R 336.1290 or FG-FACILITY SC IX.3 or 4.<sup>2</sup> **(R 336.1201)**
2. The Department has determined that compliance with the limits listed in FG-FACILITY SC I.1 and 2 provides a level of control that is at least equivalent to and not less stringent than the standards in 40 CFR 60.392, *et seq.* and R 336.1610. Accordingly, compliance with the limitations in this permit meets all applicable requirements of 40 CFR Part 60, Subpart MM and R 336.1610.<sup>2</sup> **(R 336.1610, 40 CFR 60, Subpart MM)**
3. This permit authorizes any activities including projects involving physical changes or changes in the method of operation to existing emission units that do not require an increase in the emissions limits or performance levels specified in FG-FACILITY SC I.1, 2, 3, 4, and 5. Such activities do not require the facility to obtain any federal or state air permits.<sup>2</sup> **(R 336.1201)**
4. This permit authorizes projects involving the installation of new emission units that do not require an increase in the emissions limits or performance levels specified in FG-FACILITY SC I.1, 2, 3, and 4 under the following conditions:
  - a. As a state-only enforceable requirement, the new emission unit will not result in a meaningful change in the nature or quantity of toxic air contaminants emitted from the stationary source. The permittee must demonstrate to the department by testing or calculations that a meaningful change in the nature or quantity of toxic air contaminants has not occurred. The permittee may devise its own method to perform this demonstration subject to approval by the Department. However, if the permittee demonstrates that all toxic air contaminant emissions from a new emissions unit are within the levels specified in R 336.1226 or R 336.1227, a meaningful change in toxic air contaminants has not occurred;
  - b. The new emissions unit will not be a newly constructed or reconstructed major source of hazardous air pollutants as defined in and subject to 40 C.F.R. §63.2 and §63.5(b)(3), National Emission Standard for Hazardous Air Pollutants; and,
  - c. The installation of the new emissions unit will not cause the violation of any applicable air requirement.

A demonstration that the new installation meets these criteria shall be kept on site for the life of the new emission unit and made available to the Department upon request. The permittee must notify the Department of the installation of the new emission unit. This notification must contain the information specified in R 336.1215(3)(c)(i) through (v). Construction of the new emission unit may commence upon submittal of the notice.<sup>2</sup> **(R 336.1201)**
5. The emission limits and performance levels specified in FG-FACILITY SC I.1, 2, 3, 4, and 5 may be reviewed and/or adjusted when newly applicable federal requirements or any other requirement that is enforceable as a practical matter and that the Department, under its State Implementation Plan, may impose on the facility become applicable during the term of the permit that would lower allowable emissions. Adjustments to FG-FACILITY SC I.1, 2, 3, 4, and 5 will be made through a permit revision as of the effective date of the new applicable requirements and will reflect the impact the new applicable requirements will have on the affected emission units. Initial compliance with the adjusted emission limits and performance levels will be demonstrated over the initial compliance period granted by the newly applicable federal requirement.<sup>2</sup> **(R 336.1225, R 336.1702(a), R 336.1901, R 336.2810)**
6. The permittee may, at any time, request that the Department terminate the flexible emission limit provisions of this permit and issue a traditional permit. In the event of such termination, the requirements of this permit shall remain in effect until a new permit is issued. At that time, the permit conditions for any existing emission unit that has not been modified and to which new requirements have not become applicable will revert to those found in the previous permits. For any new or modified emission unit, or any emission unit for which new requirements have become applicable the permit conditions will reflect requirements contemporaneous with the

date of installation, modification or new requirement applicability.<sup>2</sup> (**R 336.1225, R 336.1702(a), R 336.1901, R 336.2810**)

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).



## FG-Controls FLEXIBLE GROUP CONDITIONS

### **DESCRIPTION**

Three regenerative catalytic oxidizers and one regenerative thermal oxidizer used for control of VOC emissions from the electrocoat system, the paint spray booths, and curing ovens.

**Emission Units:** EU-ECOAT, EU-GUIDECOAT, and EU-TOPCOAT

### **POLLUTION CONTROL EQUIPMENT**

Three regenerative catalytic oxidizers and one regenerative thermal oxidizer.

#### **I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

#### **II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

#### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall implement the following:

- a. The permittee shall implement the malfunction abatement plan for the control system made up of three RCOs and one RTO approved by the AQD District Supervisor consisting of the requirements attached in Appendix 3. The plan shall be updated as necessary to reflect changes in equipment, to implement corrective actions and to address malfunctions. The malfunction abatement plan shall be made available to the Division upon request.<sup>2</sup> (R 336.702, R 336.1901, R 336.1910, R 336.1911, R 336.1912, R 336.2810, 40 CFR 52.21)
- b. The permittee shall maintain and implement the Operation and Maintenance Plan (O & M Plan) for FG-Coating consisting of the requirements attached in Appendix 3. The O & M Plan shall be updated as necessary to reflect changes in equipment and monitoring, to implement corrective actions and to address malfunctions. Changes in the O & M Plan from those outlined in Appendix 3 shall be submitted to the AQD District Supervisor for review and approval. All records and activities associated with the O & M Plan shall be made available to the Department upon request.<sup>2</sup> (R 336.702, R 336.1901, R 336.1910, R 336.1911, R 336.1912, R 336.2810, 40 CFR 52.21)
- c. The permittee will develop, maintain and implement an outlet concentration monitoring plan as a trending tool to monitor the performance of the control systems. The outlet monitoring plan shall contain the requirements as outlined in Appendix 3. The outlet concentration monitoring plan shall be updated as necessary to reflect changes in equipment and monitoring. Changes in the plan (including requests to modify or discontinue) as outlined in Appendix 3 shall be submitted to the AQD District Supervisor for review and approval. All records and activities associated with the plan shall be made available to the Department upon request.<sup>2</sup> (R 336.1901, R 336.1910)

See Appendix 3

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device to continuously monitor and record the temperature of the three regenerative catalytic oxidizer catalyst beds, during operation of EU-ECOAT, EU-GUIDECOAT, and EU-TOPCOAT. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval.<sup>2</sup> **(R 336.1224, R 336.1225, R 336.702(a), R 336.1901, R 336.1910, R 336.2810, 40 CFR 52.21, 40 CFR 60 Subpart MM)**
2. The permittee shall keep, in a satisfactory manner, operating temperature records for each of the three regenerative catalytic oxidizers as required by FG-CONTROLS SC VI.1. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request.<sup>2</sup> **(R 336.1224, R 336.1225, R 336.702(a), R 336.1901, R 336.1910, R 336.2810, 40 CFR 52.21, 40 CFR 60 Subpart MM)**
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of the regenerative thermal oxidizer to monitor and record the temperature on a continuous basis, during operation of EU-ECOAT, EU-GUIDECOAT, and EU-TOPCOAT. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval.<sup>2</sup> **(R 336.1224, R 336.1225, R 336.702(a), R 336.1901, R 336.1910, R 336.2810, 40 CFR 52.21, 40 CFR 60 Subpart MM)**
4. The permittee shall keep, in a satisfactory manner, combustion chamber temperature records of the regenerative thermal oxidizer as required by FG-CONTROLS SC VI.3. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request.<sup>2</sup> **(R 336.1224, R 336.1225, R 336.702(a), R 336.1901, R 336.1910, R 336.2810, 40 CFR 52.21, 40 CFR 60 Subpart MM)**
5. The permittee shall validate or recalibrate each thermocouple associated with the three regenerative catalytic oxidizers and the regenerative thermal oxidizer on an annual basis. In lieu of validation or recalibration the thermocouples may be replaced. Records of the validation, recalibration, or replacement shall be kept on file and made available to the Department upon request.<sup>2</sup> **(R 336.1213(3), R 336.1224, R 336.1225, R 336.702(a), R 336.1901, R 336.1910, R 336.2810, 40 CFR 52.21, 40 CFR 60 Subpart MM, 40 CFR 64.6(c)(1)(i), (ii), 40 CFR 64.7(e))**
6. On and after 180 days of issuance of this permit, the permittee shall conduct bypass monitoring for each bypass valve on each control device in operation during production, such that the valve or closure method cannot be opened without creating an alarm condition for which a record shall be made. Records of the bypass line that was open and the length of time the bypass was open shall be kept on file and made available to the Department upon request.<sup>2</sup> **(40 CFR 64.3(a)(2))**
7. Compliance with FG-CONTROLS SC VI.1 and VI.3 shall be considered compliance with the regenerative thermal/catalytic oxidizer monitoring requirement specified in 40 CFR 60.394 and 40 CFR 60.395 which have been subsumed under this streamlined requirement.<sup>2</sup> **(R 336.1213(3))**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

1. For the purposes of Compliance Assurance Monitoring (CAM), excursions will be defined as follows: **(40 CFR 64.6(c)(2))**
  - a. A monitoring excursion is defined as a failure to properly monitor as required in FG-CONTROLS SC VI.2, VI.4, VI.6, and VI.7.
  - b. A monitoring excursion is defined as failure to properly implement and/or maintain the O&M plan required in FG-CONTROLS SC III.1.
2. The permittee shall comply with all applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## FG-Auto MACT FLEXIBLE GROUP CONDITIONS

### DESCRIPTION

Each new, reconstructed, or existing affected source as defined in Title 40 of the Code of Federal Regulations (CFR), Part 63.3082, that is located at a facility which applies topcoat to new automobile or new light duty truck bodies or body parts for new automobiles or new light duty trucks; AND/OR in which you choose to include, pursuant to 40 CFR 63.3082(c), any coating operations which apply coatings to new other motor vehicle bodies or body parts for new other motor vehicles; parts intended for use in new automobiles, new light duty trucks or new other motor vehicles; or aftermarket repair or replacement parts for automobiles, light duty trucks or other motor vehicles; and that is a major source, is located at a major source, or is part of a major source of emissions of hazardous air pollutants (HAPs) except as provided in 63.3081(c). This includes equipment covered by other permits, grandfathered equipment, and exempt equipment.

### EMISSION UNITS:

EU-ECOAT, EU-NGB ADHESIVES & SEALERS, EU-DEADENERS, EU-GLASS INSTALL, EU-GUIDECOAT, EU-TOPCOAT, EU-FINAL REPAIR, EU-BLACKOUT/WAX, EU-UNDERCOAT, and EU-ASSEMBLY PURGE & CLEAN

### POLLUTION CONTROL EQUIPMENT

Three regenerative catalytic oxidizers and one regenerative thermal oxidizer

### I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Organic HAP	0.60 <sup>2</sup> lb per GACS	Calendar month	<b>Existing –</b> FG-Auto MACT WITH ECOAT	SC III.2, V.1 & VI.3	40 CFR 63.3091(a)
2. Organic HAP*	1.10 <sup>2</sup> lbs per GACS	Calendar month	<b>Existing –</b> FG-Auto MACT	SC III.2, V.1 & VI.3	40 CFR 63.3091(b)
3. Organic HAP	0.01 <sup>2</sup> lb per lb of coating	Calendar month	<b>New/Reconstructed or Existing –</b> EU-NGB ADHESIVES & SEALERS	SC III.2, V.1 & VI.3	40 CFR 63.3090(c) or 63.3091(c)
4. Organic HAP	0.01 <sup>2</sup> lb per lb of coating	Calendar month	<b>New/Reconstructed or Existing –</b> EU-DEADENERS	SC III.2, V.1 & VI.3	40 CFR 63.3090(d) or 63.3091(d)
<ul style="list-style-type: none"> <li>• <b>FG-Auto MACT</b> includes Guidecoat, Topcoat, Final Repair, Blackout, Wax, Undercoat, Glass Bonding Primer, and Glass Bonding Adhesive operations plus all coatings and thinners, except for deadener materials and adhesive and sealers not part of glass bonding systems.</li> <li>• <b>FG-Auto MACT WITH ECOAT</b> also includes Electrocoat operations in addition to all of the operations of FG-Auto MACT.</li> <li>• <b>EU-ADHESIVES/SEALERS</b> include only adhesives and sealers that are not part of glass bonding systems.</li> </ul>					
* Permittee may choose to comply with this limit if the requirements of Condition No. I.5 is met.					

5. The permittee may choose to comply with either Special Condition numbers I.1 or I.2. The permittee may choose to comply with Special Condition number I.2 only if Electrocoat system (EU-ECOAT) meets either of the following requirements.<sup>2</sup> **(40 CFR 63.3092)**

- a) Each individual material added to the Electrocoat system contains no more than 1.0 percent by weight of any organic HAP and no more than 0.10 percent by weight of any OSHA-defined carcinogenic organic HAP, or
- b) The emissions from all Electrocoat bake ovens are captured and ducted to a CONTROL DEVICE having a minimum destruction or removal efficiency of at least 95 percent (by weight).

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall develop and implement a work practice plan to minimize the organic HAP emissions from the storage, mixing and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by all coating operations for which an emission limit has been established under Special Condition Nos. I.1 through I.4. The work practice plan must specify practices and procedures to ensure that, at a minimum, the following elements are implemented consistent with the requirements of 40 CFR 63.3094: The permittee shall comply with the applicable work practice plans at all times.
  - a) All organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be stored in closed containers.
  - b) Spills of organic-HAP containing coatings, thinners, cleaning materials, and waste materials must be minimized.
  - c) Organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.
  - d) Mixing vessels, other than day tanks equipped with continuous agitation systems, which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.
  - e) Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.
  - f) Organic HAP emissions from cleaning and from purging of equipment associated with all coating operations subject to emission limits in Special Conditions Nos. I.1 through I.4 above must be minimized by addressing:
    - i) Vehicle body wipe pursuant to 40 CFR 63.3094(c)(1)(i);
    - ii) Coating line purging pursuant to 40 CFR 63.3094(c)(1)(ii);
    - iii) Coating system flushing pursuant to 40 CFR 63.3094(c)(1)(iii);
    - iv) Cleaning of spray booth grates pursuant to 40 CFR 63.3094(c)(1)(iv);
    - v) Cleaning of spray booth walls pursuant to 40 CFR 63.3094(c)(1)(v);
    - vi) Cleaning of spray booth equipment pursuant to 40 CFR 63.3094(c)(1)(vi);
    - vii) Cleaning of external spray booth areas pursuant to 40 CFR 63.3094(c)(1)(vii);
    - viii) Additional housekeeping measures pursuant to 40 CFR 63.3094(c)(1)(viii).

The permittee may choose to comply with an alternative to the work practice standard, after receiving prior approval from the USEPA in accordance with 40 CFR 63.6(g).<sup>2</sup> **(40 CFR 63.3100(c), 40 CFR 63.4493(b) and (c))**

The work practice plan shall not become part of the facility's Renewable Operating Permit (ROP). Revisions to the work practice plan likewise do not represent revisions to the facility's ROP. Copies of the current work practice plan and any earlier plan developed within the past 5 years are required to be made available for inspection and copying by the AQD upon request.<sup>2</sup> **(40 CFR 63.3094)**

2. For any coating operation(s) for which HAP emission reductions due to the use of add-on control equipment are relied upon to demonstrate compliance with the emission limits in Special Condition Nos. I.1 through I.4 above,

the permittee shall meet the operating limits specified in Table 1 of 40 CFR 63, Subpart IIII as identified below. The operating limits in Table 1 apply to the emission capture and add-on control systems on the coating operations. The permittee must establish the operating limits during the performance test according to the requirements in 40 CFR 63.3167. The operating limits shall be met at all times after they are established, except for periods of startup, shutdown and malfunction.<sup>2</sup> **(40 CFR 63.3093, 40 CFR 63.3100(b) and (d) and Table 1)**

Add-On Control Device	Operating Limit
Thermal Oxidizer	The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to 40 CFR 63.3167(a).
Catalytic Oxidizer	The average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to 40 CFR 63.3167(b); and either:  Ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to 40 CFR 63.3167(b)(2); or,  Develop and implement an inspection and maintenance plan according to 40 CFR 63.3167(b)(4).
Regenerative Carbon Adsorber	The total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to 40 CFR 63.3167(c).  The temperature of the carbon bed after completing each regeneration and any cooling cycle must not exceed the carbon bed temperature limit established according to 40 CFR 63.3167(c).
Condenser	The average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to 40 CFR 63.3167(d).
Concentrators, Including Zeolite Wheels and Rotary Carbon Adsorbers	The average desorption gas inlet temperature in any 3-hour period must not fall below the limit established according to 40 CFR 63.3167(e).
Emission Capture System that is a Permanent Total Enclosure (PTE), Except for Downdraft Spray Booths, Flash-Off Areas, or Bake Ovens Associated with Downdraft Spray Booths	The direction of the air flow at all times must be into the enclosure; and either:  The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or,  The pressure drop across the enclosure must be at least 0.007 inch water, as established in Method 204 of Appendix M to 40 CFR 51.
Emission Capture System that is not a PTE, Except for Downdraft Spray Booths, Flash-Off Areas, or Bake Ovens Associated with Downdraft Spray Booths	The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to 40 CFR 63.3167(f).

- The permittee shall develop and implement a written startup, shutdown and malfunction plan (SSMP) in accordance with 40 CFR 63.6(e)(3). This plan must address the startup, shutdown and corrective actions in the event of a malfunction of any emission capture system or add-on control device upon which compliance with any of the emission limits in Special Condition numbers I.1 through I.4 depends. The SSMP must also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures.<sup>2</sup> **(40 CFR 63.3100(f))**

4. The permittee shall operate and maintain FG-Auto MACT including any emission capture system or add-on control device upon which compliance with any of the emission limits in Special Condition numbers I.1 through I.4 depends according to the provisions in 40 CFR 63.6(e)(1)(i). (40 CFR 63.3100(d))<sup>2</sup>
5. The permittee shall maintain a log detailing the operation and maintenance of any emission capture system, add-on control device, or continuous parameter monitor upon which compliance with any of the emission limits in Special Condition numbers I.1 through I.4 depends. The log shall cover the period between the compliance date specified in 40 CFR 63.3083 and the date when the initial emission capture system and add-on control device performance tests have been completed, as specified in 40 CFR 63.3160.<sup>2</sup> **(40 CFR 63.3100(e))**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii), 40 CFR 63.3130, 40 CFR 63.3131)**

1. The permittee shall perform the applicable performance tests and compliance demonstrations in accordance with 40 CFR 63.3150-3152, 40 CFR 63.3160-3161, 40 CFR 63.3163-3168, 40 CFR 63.3170-3171, and 40 CFR 63.3173.<sup>2</sup> **(40 CFR, Part 63, Subpart IIII)**
2. The permittee may rely upon the results of capture, destruction or transfer efficiency tests that have been previously conducted upon written approval from the AQD District Supervisor. Any such previous tests must meet the criteria identified in 40 CFR 63.3160(c)(1) through (3).<sup>2</sup> **(40 CFR 63.3160)**
3. The permittee shall determine the mass fraction of each organic HAP for each material used according to the procedures established under 40 CFR 63.3151(a)(1) through (5). The permittee may use USEPA Method ALT-017 as an alternative for any material used, after demonstrating that its use as an alternative test methodology for that material, has been approved by the USEPA pursuant to the requirements of 40 CFR 63.3151(a)(3) and 40 CFR 63.7.<sup>2</sup> **(40 CFR 63.7, 40 CFR 63.3151)**

See Appendix 5

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii), 40 CFR 63.3131)**

1. The permittee shall compile all required records and complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the end of the calendar month following each compliance period unless otherwise specified in any monitoring/recordkeeping condition.<sup>2</sup> **(R 336.1213(3))**
2. The permittee shall conduct an initial compliance demonstration for the initial compliance period described in 40 CFR 63.3150-3151, 40 CFR 63.3160-3161, and 40 CFR 63.3170-3171. The initial compliance period begins on the applicable compliance date specified in 40 CFR 63.3083 and ends on the last day of the month following the compliance date. If the initial date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next month.<sup>2</sup> **(40 CFR 63.3150, 40 CFR 63.3160, 40 CFR 63.3170, 40 CFR 63.3083(a) and (b))**
3. The permittee shall install, operate and maintain each Continuous Parameter Monitoring System (CPMS) according to the requirements of 40 CFR 63.3168(a). If the capture system contains a bypass line, the permittee shall comply with the requirements of 40 CFR 63.3168(b).<sup>2</sup> **(40 CFR 63.3168)**
4. The permittee shall keep all records as required by 40 CFR 63.3130 in the format and timeframes outlined in 40 CFR 63.3131.<sup>2</sup> **(40 CFR 63.3152(c), 40 CFR 63.3163(j))**

5. The permittee shall maintain, at a minimum, the following records as of the applicable compliance date, for each compliance period:
- A copy of each notification and report that is submitted to comply with 40 CFR, Part 63, Subpart IIII and the documentation supporting each notification and report.<sup>2</sup> **(40 CFR 63.3130(a))**
  - A current copy of information provided by materials suppliers or manufactures, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP for each coating, thinner and cleaning material, the density for each coating and thinner, and the volume fraction of coating solids for each coating.<sup>2</sup> **(40 CFR 63.3130(b))**
  - For each coating or thinner used in FG-Auto MACT or FG-Auto MACT WITH ECOAT, the volume used in each month, the mass fraction organic HAP content, the density, and the volume fraction of solids.<sup>2</sup> **(40 CFR 63.3130(c))**
  - For each material used in EU-DEADENERS and EU-NGB SEALERS & ADHESIVES, the mass used in each month and the mass organic HAP content.<sup>2</sup> **(40 CFR 63.3130(c))**
  - Calculations of the organic HAP emission rate for FG-Auto MACT or FG-Auto MACT WITH ECOAT in pounds per gallon of applied coating solids. If permittee chooses to comply with the option identified in Special Condition I.5.a., a record of the weight fraction of each organic HAP in each material added to the Electrocoat system. These calculations and records must include all raw data, algorithms, and intermediate calculations. If the "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22), is used, all data input to this protocol must be recorded. If these data are maintained as electronic files, the electronic files, as well as any paper copies must be maintained.<sup>2</sup> **(40 CFR 63.3130(c), 40 CFR 63.3163, 40 CFR 63.3173)**
  - Calculation of the average monthly mass organic HAP content in pounds per pound of coating, separately for EU-DEADENERS and EU-NGB SEALERS & ADHESIVES.<sup>2</sup> **(40 CFR 63.3130(c), 40 CFR 63.3152)**
  - The name, volume, mass fraction organic HAP content and density of each cleaning material used.<sup>2</sup> **(40 CFR 63.3130(d) - (f))**
  - Any additional records pertaining to deviations; startup, shutdown or malfunctions; emission capture systems; performance testing; capture and control efficiency determinations; transfer efficiency determinations; work practice plans; and design and operation of control and monitoring systems for any emission capture system or add-on control device upon which compliance with any of the emission limits in Special Condition numbers I.1 through I.4 depends, pursuant to 40 CFR 63.3130(g) through (o).<sup>2</sup> **(40 CFR 63.3130(g) - (o))**
  - Records pertaining to the design and operation of control and monitoring systems for any emission capture system or add-on control device upon which compliance with any of the emission limits in Special Condition numbers I.1 through I.4 depends must be maintained on-site for the life of the equipment in a location readily available to plant operators and inspectors.<sup>2</sup> **(40 CFR 63.3130(o))**
6. For any coating operation(s) using add-on controls, the permittee shall demonstrate continuous compliance with the operating limits specified in Table 1 of 40 CFR, Part 63, Subpart IIII for any emission capture system or add-on control device upon which compliance with any of the emission limits in Special Condition numbers I.1 through I.4 depends pursuant to 40 CFR 63.3163 and 40 CFR 63.3173 using the method(s) described below:<sup>2</sup> **(40 CFR 63.3163, 40 CFR 63.3173 and Table 1)**

Add-On Control Device	Operating Limit	Continuous Compliance Demonstration Method
Thermal Oxidizer	The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to 40 CFR 63.3167(a).	a. Collect the combustion temperature data according to 40 CFR 63.3168(c); b. Reduce the data to 3-hour block averages; and



Add-On Control Device	Operating Limit	Continuous Compliance Demonstration Method
		c. Maintain the 3-hour average combustion temperature at or above temperature limit.
Catalytic Oxidizer	<p>The average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to 40 CFR 63.3167(b); and either:</p> <p>Ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to 40 CFR 63.3167(b)(2); or,</p> <p>Develop and implement an inspection and maintenance plan according to 40 CFR 63.3167(b)(4).</p>	<p>a. Collect the temperature data according to 40 CFR 63.3168(c);</p> <p>b. Reduce the data to 3-hour block averages; and</p> <p>c. Maintain the 3-hour average temperature before the catalyst bed at or above the temperature limit.</p> <p>a. Collect the temperature data according to 40 CFR 63.3168(c);</p> <p>b. Reduce the data to 3-hour block averages; and</p> <p>c. Maintain the 3-hour average temperature difference at or above the temperature difference limit; or</p> <p>a. Maintaining an up-to-date inspection maintenance plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during a monthly or annual inspection required by 40 CFR 63.3167(b)(4), take corrective action as soon as practicable consistent with the manufacturer's recommendations.</p>
Regenerative Carbon Adsorber	<p>The total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to 40 CFR 63.3167(c).</p> <p>The temperature of the carbon bed after completing each regeneration and any cooling cycle must not exceed the carbon bed temperature limit established according to 40 CFR 63.3167(c).</p>	<p>a. Measure the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle according to 40 CFR 63.3168(d); and</p> <p>b. Maintain the total regeneration desorbing gas mass flow at or above the mass flow limit.</p> <p>a. Measure the temperature of the carbon bed after completing each regeneration and any cooling cycle according to 40 CFR 63.3168(d); and</p> <p>b. Operate the carbon beds such that each carbon bed is not returned to service until completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit.</p>
Condenser	The average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established	a. Collect the condenser outlet (product side) gas temperature according to 40 CFR 63.3168(e);

Add-On Control Device	Operating Limit	Continuous Compliance Demonstration Method
	according to 40 CFR 63.3167(d).	b. Reduce the data to 3-hour block averages; and c. Maintain the 3-hour average gas temperature at the outlet at or below the temperature limit.
Concentrators, Including Zeolite Wheels and Rotary Carbon Adsorbers	The average desorption gas inlet temperature in any 3-hour period must not fall below the limit established according to 40 CFR 63.3167(e).	a. Collect the temperature data according to 40 CFR 63.3168(f); b. Reduce the data to 3-hour block averages; and c. Maintain the 3-hour average temperature at or above the temperature limit.
Emission Capture System that is a Permanent Total Enclosure (PTE), Except for Downdraft Spray Booths, Flash-Off Areas, or Bake Ovens Associated with Downdraft Spray Booths	The direction of the air flow at all times must be into the enclosure; and either:  The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or,  The pressure drop across the enclosure must be at least 0.007 inch water, as established in Method 204 of Appendix M to 40 CFR 51.	a. Collect the direction of air flow, and either the facial velocity of air through all natural draft openings according to 40 CFR 63.3168(g)(1) or the pressure drop across the enclosure according to 40 CFR 63.3168(g)(2); and b. Maintain the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.
Emission Capture System that is not a PTE, Except for Downdraft Spray Booths, Flash-Off Areas, or Bake Ovens Associated with Downdraft Spray Booths	The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to 40 CFR 63.3167(f).	a. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to 40 CFR 63.3168(g); b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit.

7. Permittee shall monitor or secure the valve or closure mechanism controlling each bypass line for each capture system upon which compliance with any of the emission limits in Special Condition numbers I.1 through I.4 depends in a non-bypass mode such that the valve or closure mechanism cannot be opened without creating a record that it was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the following:

- a) Flow control position indicator requirements pursuant to 40 CFR 63.3168(b)(1)(i);
- b) Car-seal or lock-and-key valve closures requirements pursuant to 40 CFR 63.3168(b)(1)(ii);
- c) Valve closure monitoring requirements pursuant to 40 CFR 63.3168(b)(1)(iii);
- d) Automatic shutdown system requirements pursuant to 40 CFR 63.3168(b)(1)(iv).

If any bypass line is opened, a description of why the line was opened and the length of time it remained open must be included in the semi-annual compliance reports required in Special Condition number 12.18.<sup>2</sup> **(40 CFR 63.3168(b))**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(40 CFR 63.3120(a)(1), R336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit all semiannual compliance reports as required by 40 CFR 63.3120(a). The first time period covered by these reports shall be shortened so as to end on either June 30 or December 31, whichever comes first. These reports shall be due March 15 for the reporting period July 1 to December 31 and September 15 for the reporting period January 1 to June 30.<sup>2</sup> **(40 CFR 63.3120(a))**
5. The Permittee shall submit applicable notifications specified in 40 CFR 63.7(b) and (c), 63.8(f)(4) and 63.9(b) through (e) and (h), as specified in 40 CFR 63.3110.<sup>2</sup> **(40 CFR, Part 63, Subparts A and IIII)**
6. For any coating operation(s) using add-on controls, the permittee shall submit all performance test reports for emission capture systems and add-on control devices, and reports of transfer efficiency tests as required by 40 CFR 63.3120(b).<sup>2</sup> **(40 CFR 63.3120(b))**
7. If an emission capture system or add-on control device is used to comply with any of the emission limits in Special Condition numbers I.1 through I.4, and a startup, shutdown, or malfunction occurs during the semiannual reporting period, the permittee shall submit a SSM report as specified in 40 CFR 63.3120(c).<sup>2</sup> **(40 CFR 63.3120(c), 40 CFR 63.10(d))**

See Appendix 8

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart IIII for Surface Coating of Automobiles and Light Duty Trucks by the initial compliance date.<sup>2</sup> **(40 CFR, Part 63, Subparts A and IIII)**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FG-Old Facility  
FLEXIBLE GROUP CONDITIONS****DESCRIPTION**

The affected source is each new, reconstructed, or existing Organic Liquid Distribution (OLD) (non-gasoline) operation that is located at, or is part of a major source of hazardous air pollutant (HAP) emissions. The affected source is comprised of storage tanks, transfer racks, equipment leak components associated with storage tanks, transfer racks and pipelines, transport vehicles, and all containers while loading or unloading at transfer racks subject to this subpart. Equipment that is part of an affected source under another NESHAP is excluded from the affected source. **(40 CFR 63.2338(c))**

These conditions specifically cover existing (construction pre dates April 2, 2002) liquid storage tanks which hold more than 5,000 gallons but less than 50,000 gallons and/or new liquid storage tanks which hold more than 5,000 gallons but less than 10,000 gallons of methanol/windshield washer fill solvents that are dispensed to newly assembled vehicles.

**Emission Unit:** EU-Tanks

**POLLUTION CONTROL EQUIPMENT****I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. For each existing storage tank with a capacity greater than 5,000 gallons but less than 50,000 gallons, the permittee shall comply with the requirements of 63.2343(b).<sup>2</sup> **(40 CFR 63.2343(b))**
2. For each new storage tank with a capacity greater than 5,000 gallons but less than 10,000 gallons, the permittee shall comply with the requirements of 63.2343(b).<sup>2</sup> **(40 CFR 63.2343(b))**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. NA

**See Appendix 5**

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep documentation, including a record of the annual average true vapor pressure of the total Table 1 Organic liquid, that verifies the storage tank is not required to be controlled under this subpart. The documentation shall be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review.<sup>2</sup> **(63.2343(b)(3))**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit the following information in either the Notification of Compliance Status, according to the schedule in Table 12 to this subpart, or in your first Compliance report according to the schedule in 63.2386(b), which ever occurs first.<sup>2</sup> **(63.2343(b)(1))**
  - a) Company name and address.
  - b) A statement by a responsible official, including the official's name, title and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate and complete.
  - c) Date of report and beginning and ending dates of the reporting period.
  - d) A list of all storage tanks greater than 5,000 gallons that are part of the affected source but not subject to any of the emission limitations, operating limits, or work practice standards of this subpart.
5. The permittee shall submit subsequent compliance reports according to the schedule in 63.2386(b) or in conjunction with the reporting requirements in this ROP whenever any of the following events occur as applicable:<sup>2</sup> **(63.2343(b)(2))**
  - a) Any storage tank became subject to control under this subpart EEEE.
  - b) Any storage tank greater than 5,000 gallons became part of the affected source, but is not subject to any emission limitations, operating limits or work practice standards of this subpart.

See Appendix 8

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart EEEE as they apply to FG-OLDFACILITY. The permittee may choose an alternative compliance method not listed in FG-OLDFACILITY by providing the appropriate notifications required under 40 CFR 63.9(j), maintaining a log required by 40 CFR 70.6(a)(9), and by complying with all applicable provisions required by Subpart EEEE for the compliance option chosen.<sup>2</sup>  
**(40 CFR Part 70.6(a)(9), 40 CFR Part 63.9(j), 40 CFR Part 63, Subparts A and EEEEE)**

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## FG-Plastic MACT FLEXIBLE GROUP CONDITIONS

### DESCRIPTION

Each new, reconstructed, and existing affected source engaged in the surface coating of plastic parts and products, identified within each of the four subcategories listed in 40 CFR, Part 63, Subpart PPPP, 63.4481(a)(2) to (5). Surface coating is defined by 40 CFR 63.4481 as the application of coating to a substrate using, for example, spray guns or dip tanks. Surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage if they are directly related to the application of the coating.

### POLLUTION CONTROL EQUIPMENT

#### I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Organic HAP	0.16 lb per lb of coating solids	12-month rolling time period *	New or Reconstructed - General Use Coating	SC V.1, V.2, VI.1 through VI.10	40 CFR 63.4490(a)(1)
2. Organic HAP	0.26 lb per lb of coating solids	12-month rolling time period *	New or Reconstructed - Automotive Lamp Coating	SC V.1, V.2, VI.1 through VI.10	40 CFR 63.4490(a)(2)
3. Organic HAP	0.22 lb per lb of coating solids	12-month rolling time period *	New or Reconstructed - Thermoplastic Olefin (TPO) Coating	SC V.1, V.2, VI.1 through VI.10	40 CFR 63.4490(a)(3)
4. Organic HAP	1.34 lb per lb of coating solids	12-month rolling time period *	New or Reconstructed - Assembled On-road Vehicle Coating	SC V.1, V.2, VI.1 through VI.10	40 CFR 63.4490(a)(4)
5. Organic HAP	0.16 lb per lb of coating solids	12-month rolling time period *	Existing - General Use Coating	SC V.1, V.2, VI.1 through VI.10	40 CFR 63.4490(b)(1)
6. Organic HAP	0.45 lb per lb of coating solids	12-month rolling time period *	Existing - Automotive Lamp Coating	SC V.1, V.2, VI.1 through VI.10	40 CFR 63.4490(b)(2)
7. Organic HAP	0.26 lb per lb of coating solids	12-month rolling time period *	Existing - Thermoplastic Olefin (TPO) Coating	SC V.1, V.2, VI.1 through VI.10	40 CFR 63.4490(b)(3)
8. Organic HAP	1.34 lb per lb of coating solids	12-month rolling time period *	Existing - Assembled On-road Vehicle Coating	SC V.1, V.2, VI.1 through VI.10	40 CFR 63.4490(b)(4)
* As determined at the end of each calendar month.					

9. The permittee shall determine whether the organic HAP emission rate is equal to or less than the applicable emission limits in 40 CFR 63.4490 using at least one of the following three options, which are listed in 40 CFR 63.4491(a) through (c):
- Compliant material option,
  - Emission rate without add-on controls option, or
  - Emission rate with add-on controls option.

The permittee shall include all coatings, thinners and/or other additives, and cleaning materials used when determining the emission rate. **(40 CFR 63.4491)**

10. Any coating operation(s) using the compliant material option or the emission rate without add-on controls option shall be in compliance with the applicable emission limits in 40 CFR 63.4490 at all times. **(40 CFR 63.4500(a)(1))**
11. Any coating operation(s) using the emission rate with add-on controls option shall be in compliance with the applicable emission limits at all times except during periods of startup, shutdown, and malfunction. **(40 CFR 63.4500(a)(2)(i))**
12. If the surface coating operation(s) meet the applicability criteria of more than one of the subcategory emission limits specified in 40 CFR 63.4490(a) or (b), the permittee may comply separately with each subcategory emission limit, or comply using one of the alternatives in 40 CFR 63.4490(c)(1) or (2). **(40 CFR 63.4490(c))**

## II. MATERIAL LIMIT(S)

For the compliant materials option, the permittee shall meet the material limits specified in the following table.

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Each Thinner and/or Additive	No Organic HAP *	Continuous	Each Coating Operation using Compliant Material Option	SC VI.1, VI.2, VI.3, VI.5	40 CFR 63.4491(a)
2. Each Cleaning Material	No Organic HAP *	Continuous	Each Coating Operation using Compliant Material Option	SC VI.1, VI.2, VI.3, VI.5	40 CFR 63.4491(a)
* Determined according to 40 CFR 63.4541(a).					

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall meet the operating limits specified in Table 1 of 40 CFR, Part 63, Subpart PPPP as identified below. The permittee must establish the operating limits during the performance test according to the requirements in 40 CFR 63.4567. **(40 CFR 63.4492(b) and Table 1)**

Add-on Control Device	Operating Limit
Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to 40 CFR 63.4567(a).
Catalytic oxidizer	a. The average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to 40 CFR 63.4567(b); and either b. Ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to 40 CFR 63.4567(b)(2); or c. Develop and implement an inspection and maintenance plan according to 40 CFR 63.4567(b)(4).
Regenerative carbon absorber	a. The total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to 40 CFR 63.4567(c); and b. The temperature of the carbon bed, after completing each regeneration and any cooling cycle, must not exceed the carbon bed temperature limit established according to 40 CFR 63.4567(c).
Condenser	a. The average condenser outlet (product side) gas temperature in any 3-hour period



Add-on Control Device	Operating Limit
	must not exceed the temperature limit established according to 40 CFR 63.4567(d).
Concentrators, including zeolite wheels and rotary carbon absorbers.	a. The average gas temperature of the desorption concentrate stream in any 3-hour period must not fall below the limit established according to 40 CFR 63.4567(e); and b. The average pressure drop of the dilute stream across the concentrator in any 3-hour period must not fall below the limit established according to 40 CFR 63.4567(e).
Emission capture system that is a PTE according to 40 CFR 63.4565(a).	a. The direction of the air flow at all times must be into the enclosure; and either b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or c. The pressure drop across the enclosure must be at least 0.007 inch H <sub>2</sub> O, as established in Method 204 of Appendix M to 40 CFR 51.
Emission capture system that is <u>not</u> a PTE according to 40 CFR 63.4565(a).	a. The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to 40 CFR 63.4567(f).

2. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall develop and implement a work practice plan to minimize the organic HAP emissions from the storage, mixing and conveying of coatings, thinners and/or other additives, and cleaning materials used in, and waste materials generated by the controlled coating operation(s). The work practice plan shall specify practices and procedures to ensure at a minimum the following elements are implemented:
  - a) All organic HAP containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be stored in closed containers. **(40 CFR 63.4493(b)(1))**
  - b) Spills of organic HAP containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be minimized. **(40 CFR 63.4493(b)(2))**
  - c) Organic HAP containing coatings, thinners and/or other additives, cleaning materials and waste materials must be conveyed from one location to another in closed containers or pipes. **(40 CFR 63.4493(b)(3))**
  - d) Mixing vessels which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents. **(40 CFR 63.4493(b)(4))**
  - e) Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment. **(40 CFR 63.4493(b)(5))**

The permittee may choose to comply with an alternative to the work practice standard, after receiving prior approval from the USEPA in accordance with 40 CFR 63.6(g). **(40 CFR 63.4493(c))**
3. If the affected source uses an emission capture system and add-on control device, the permittee shall develop and implement a written startup, shutdown and malfunction plan (SSMP) according to the provisions of 40 CFR 63.6(e)(3). This SSMP must address the startup, shutdown and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The SSMP must also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures. **(40 CFR 63.4500(c))**
4. Any coating operation(s) using the emission rate with add-on controls option shall be in compliance with the operating limits for emission capture systems and add-on control devices required by 40 CFR 63.4492 at all times except during periods of startup, shutdown, and malfunction. **(40 CFR 63.4500(a)(2)(ii))**
5. Any coating operation(s) using the emission rate with add-on controls option shall be in compliance with the work practice standards in 40 CFR 63.4493 at all times. **(40 CFR 63.4500(a)(2)(iii))**

#### IV. DESIGN/EQUIPMENT PARAMETER(S)

1. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall not operate FG{ID} unless the CONTROL DEVICE(S) IS/ARE installed, maintained, and operated in a satisfactory manner. **(40 CFR 63.4492(b))**

## **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii), 40 CFR 63.4531)**

1. The permittee shall determine the mass fraction of organic HAP for each material used, the mass fraction of coating solids for each coating, and the density of each material used in accordance with 40 CFR 63.4541, 40 CFR 63.4551, and/or 40 CFR 63.4561. **(40 CFR 63.4541, 40 CFR 63.4551, 40 CFR 63.4561)**
2. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall conduct each performance test required by 40 CFR 63.4560 according to the requirements in 40 CFR 63.7(e)(1) and under the conditions in 40 CFR 63.4564(a)(1) and (2), unless a waiver of the performance test is obtained in accordance with 40 CFR 63.7(h). **(40 CFR 63.4564(a))**
3. The permittee shall conduct each performance test of an emission capture system and add-on control device to determine capture efficiency and emission destruction or removal efficiency, according to the requirements in 40 CFR 63.4565 and 40 CFR 63.4566. **(40 CFR 63.4564(b))**

See Appendix 5

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii), 40 CFR 63.4531)**

1. The permittee shall conduct an initial compliance demonstration for the initial compliance period according to the requirements in 40 CFR 63.4541, 40 CFR 63.4551, or 40 CFR 63.4561. The initial compliance period begins on the applicable compliance date specified in 40 CFR 63.4483 and ends on the last day of the 12<sup>th</sup> month following the compliance date. If the compliance date occurs on any day other than the first of the month, then the compliance period extends through that month plus the next 12 months. **(40 CFR 63.4483, 40 CFR 63.4540, 40 CFR 63.4550, 40 CFR 63.4560)**
2. The permittee shall keep all records required by 40 CFR 63.4530 in the format and timeframes outlined in 40 CFR 63.4531. **(40 CFR 63.4542(d), 40 CFR 63.4552(d), 40 CFR 63.4563(j))**
3. The permittee shall maintain, at a minimum, the following records for each compliance period:
  - a) A copy of each notification and report that is submitted to comply with 40 CFR, Part 63, Subpart PPPP, and the documentation supporting each notification report. **(40 CFR 63.4530(a))**
  - b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density of each coating, thinner and/or other additive, and cleaning material, and the mass fraction of coating solids for each coating. **(40 CFR 63.4530(b))**
  - c) A list the coating operations on which each compliance option was used, and the beginning and ending dates and times for each compliance option used. **(40 CFR 63.4530(c)(1))**
  - d) For the compliant materials option, the calculation of the organic HAP content for each coating, using Equation 1 of 40 CFR 63.4541. **(40 CFR 63.4530(c)(2))**
  - e) For the emission rate without add-on controls option, the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or additives, and cleaning materials used each month using Equations 1, 1A through 1C and 2 of 40 CFR 63.4551; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to 40 CFR 63.4551(e)(4); the calculation of the total mass of coating solids used each month using Equation 2 of 40 CFR 63.4551; and the calculation of each 12-month organic HAP emission rate using Equation 3 of 40 CFR 63.4551. **(40 CFR 63.4530(c)(3))**

- f) For the emission rate with add-on controls option, the calculations specified in 40 CFR 63.4530(c)(4)(i) through (v). **(40 CFR 63.4530(c)(4))**
  - g) The name and mass or volume of each coating, thinner and/or other additive, and cleaning material used during each compliance period. If the compliant material option is used for all coatings at the affected source, the permittee may maintain purchase records for each material used rather than a record of the mass used. **(40 CFR 63.4530(d))**
  - h) The mass fraction of organic HAP for each coating, thinner and/or additive, and cleaning material used during each compliance period. **(40 CFR 63.4530(e))**
  - i) The mass fraction of coating solids for each coating used during each compliance period. **(40 CFR 63.4530(f))**
  - j) The information specified in 40 CFR 63.4530(g)(1) through (3), if an allowance is used in Equation 1 of 40 CFR 63.4551 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to 40 CFR 63.4551(e)(4). **(40 CFR 63.4530(g))**
  - k) The date, time, and duration of each deviation. **(40 CFR 63.4530(h))**
  - l) For the emission rate with add-on controls option, records specified in 40 CFR 63.4530(i)(1) through (8). **(40 CFR 63.4530(i))**
4. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall demonstrate continuous compliance with the operating limits specified in Table 1 to 40 CFR, Part 63, Subpart PPPP using the applicable method(s) described below: **(40 CFR 63.4563(c))**

Add-on Control Device	Operating Limit	Continuous Compliance Demonstration Method
Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to 40 CFR 63.4567(a).	<ul style="list-style-type: none"> <li>i. Collect the combustion temperature data according to 40 CFR 63.4568(c);</li> <li>ii. Reduce the data to 3-hour block averages; and</li> <li>iii. Maintain the 3-hour average combustion temperature at or above the temperature limit.</li> </ul>
Catalytic oxidizer	<ul style="list-style-type: none"> <li>a. The average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to 40 CFR 63.4567(b); and either</li> <li>b. Ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to 40 CFR 63.4567(b)(2); or</li> <li>c. Develop and implement an inspection and</li> </ul>	<ul style="list-style-type: none"> <li>i. Collect the temperature data according to 40 CFR 63.4568(c);</li> <li>ii. Reduce the data to 3-hour block averages; and</li> <li>iii. Maintain the 3-hour average temperature before the catalyst bed at or above the temperature limit.</li> </ul> <ul style="list-style-type: none"> <li>i. Collect the temperature data according to 40 CFR 63.4568(c);</li> <li>ii. Reduce the data to 3-hour block averages; and</li> <li>iii. Maintain the 3-hour average temperature difference at or above the temperature difference limit.</li> </ul> <ul style="list-style-type: none"> <li>i. Maintain an up-to-date inspection and</li> </ul>

Add-on Control Device	Operating Limit	Continuous Compliance Demonstration Method
	maintenance plan according to 40 CFR 63.4567(b)(4).	maintenance plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during the monthly or annual inspection required by 40 CFR 63.4567(b)(4), take corrective action as soon as practicable consistent with the manufacturer's specifications.
Regenerative carbon absorber	<p>a. The total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to 40 CFR 63.4567(c); and</p> <p>b. The temperature of the carbon bed, after completing each regeneration and any cooling cycle, must not exceed the carbon bed temperature limit established according to 40 CFR 63.4567(c).</p>	<p>i. Measure the total regeneration desorbing gas (e.g. steam or nitrogen) mass flow for each regeneration cycle according to 40 CFR 63.4568(d); and</p> <p>ii. Maintain the total regeneration desorbing gas mass flow at or above the mass flow limit.</p> <p>i. Measure the temperature of the carbon bed after completing each regeneration and any cooling cycle according to 40 CFR 63.4568(d); and</p> <p>ii. Operate the carbon beds such that each carbon bed is not returned to service until completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit.</p>
Condenser	a. The average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to 40 CFR 63.4567(d).	<p>i. Collect the condenser outlet (product side) gas temperature according to 40 CFR 63.4568(e);</p> <p>ii. Reduce the data to 3-hour block averages; and</p> <p>iii. Maintain the 3-hour average gas temperature at the outlet at or below the temperature limit.</p>
Concentrators, including zeolite wheels and rotary carbon absorbers.	<p>a. The average gas temperature of the desorption concentrate stream in any 3-hour period must not fall below the limit established according to 40 CFR 63.4567(e); and</p> <p>b. The average pressure drop of the dilute stream across the concentrator in any 3-hour period must not fall below the limit established according to 40 CFR 63.4567(e).</p>	<p>i. Collect the temperature data according to 40 CFR 63.4568(f);</p> <p>ii. Reduce the data to 3-hour block averages; and</p> <p>iii. Maintain the 3-hour average temperature at or above the temperature limit.</p> <p>i. Collect the pressure drop data according to 40 CFR 63.4568(f);</p> <p>ii. Reduce the pressure drop data to 3-hour block averages; and</p> <p>iii. Maintain the 3-hour average pressure drop at or above the pressure drop limit.</p>

Add-on Control Device	Operating Limit	Continuous Compliance Demonstration Method
Emission capture system that is a PTE according to 40 CFR 63.4565(a).	a. The direction of the air flow at all times must be into the enclosure; and either b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or c. The pressure drop across the enclosure must be at least 0.007 inch H <sub>2</sub> O, as established in Method 204 of Appendix M to 40 CFR, Part 51.	i. Collect the direction of air flow, and either the facial velocity of air through all natural draft openings according to 40 CFR 63.4568(g)(1) or the pressure drop across the enclosure according to 40 CFR 63.4568(g)(2); and ii. Maintain the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintain the direction of air flow into the enclosure at all times.
Emission capture system that is <u>not</u> a PTE according to 40 CFR 63.4565(a).	a. The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to 40 CFR 63.4567(f).	i. Collect the gas volumetric flow rate or duct static pressure for each capture device according to 40 CFR 63.4568(g); ii. Reduce the data to 3-hour block averages; and iii. Maintain the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit.

5. For each coating used for the compliant coating option, the permittee shall demonstrate continuous compliance with the emission limit in 40 CFR 63.4490, for each compliance period, using Equation 1 of 40 CFR 63.4541. For each thinner and cleaning material used, the permittee shall determine continuous compliance according to 40 CFR 63.4541(a). **(40 CFR 63.4542)**
6. For any coating operation or group of coating operations using the emission rate without add-on controls option, the permittee shall demonstrate continuous compliance with the applicable organic HAP emission limit in 40 CFR 63.4490, for each compliance period according to 40 CFR 63.4551(a) through (g). **(40 CFR 63.4552)**
7. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall demonstrate continuous compliance with the applicable organic HAP emission limit, for each compliance period according to the procedures in 40 CFR 63.4561. **(40 CFR 63.4563)**
8. During the performance test required by 40 CFR 63.4560, the permittee shall perform the applicable monitoring and recordkeeping in accordance with 40 CFR 63.4567 to establish the emission capture system and add-on control device operating limits required by 40 CFR 63.4492. **(40 CFR 63.4567)**
9. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall install, operate, and maintain each Continuous Parameter Monitoring System (CPMS) according to the requirements of 40 CFR 63.4568(a). If the capture system contains a bypass line, the permittee shall comply with the requirements of 40 CFR 63.4568(b). **(40 CFR 63.4568)**
10. The permittee must apply to the USEPA for approval of alternative monitoring under 40 CFR 63.8(f), if using an add-on control device other than those listed in Table 1 of 40 CFR, Part 63, Subpart PPPP, or to monitor an alternative parameter and comply with a different operating limit. **(40 CFR 63.4492(c))**

## **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. For the compliant material option, the use of any coating, thinner or cleaning material which does not meet the criteria specified in 40 CFR 63.4542(a) is a deviation that must be reported as specified in 40 CFR 63.4510(c)(6) and 40 CFR 63.4520(a)(5) **(40 CFR 63.4542(b))**
5. For the emission rate without add-on controls, if the organic HAP emission rate for any compliance period exceeds the applicable emission limit specified in 40 CFR 63.4490, the permittee shall report this as a deviation as specified in 40 CFR 63.4510(c)(6) and 40 CFR 63.4520(a)(6). **(40 CFR 63.4552(b))**
6. For the emission rate with add-on controls option, the permittee shall report the following as deviations as specified in 40 CFR 63.4510(c)(6) and 40 CFR 63.4520(a)(7):
  - a) The organic HAP emission rate for any compliance period exceeds the applicable emission limit specified in 40 CFR 63.4490; **(40 CFR 63.4563(b))**
  - b) An operating parameter is out of the allowed range; **(40 CFR 63.4563(c)(1))**
  - c) Any control system by-pass line, for which liquid-liquid material balances are not carried out, is opened; **(40 CFR 63.4563(d))**
  - d) Deviations from work practice standards occur. **(40 CFR 63.4563(e))**
7. The Permittee shall submit the applicable notifications specified in 40 CFR 63.7(b) and (c), 63.8(f)(4) and 63.9(b) through (e) and (h), an initial notification and a notification of compliance status as specified in 40 CFR 63.4510. **(40 CFR, Part 63, Subparts A and PPPP)**
8. The permittee shall submit all semiannual compliance reports as required by 40 CFR 63.4520. Each semiannual compliance report shall identify which coating operation(s) used each compliance option, and if there were no deviations from the emission limitations in 40 CFR 63.4490, include a statement that the coating operations were in compliance. **(40 CFR 63.4520, 40 CFR 63.4542(c), 40 CFR 63.4552(c), 40 CFR 63.4563(f))**
9. For any coating operation(s) using the emission rate with add-on controls option, the permittee shall submit all performance test reports for emission capture systems and add-on control devices. **(40 CFR 63.4520(b))**
10. If the emission rate with add-on controls option is used and a startup, shutdown, or malfunction occurs during the semiannual reporting period, the permittee shall submit a SSM report as specified in 40 CFR 63.4520(c). **(40 CFR 63.4520(c), 40 CFR 63.10(d))**

See Appendix 8

### **VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart PPPP for Surface Coating of Plastic Parts and Products by the initial compliance date. **(40 CFR, Part 63, Subparts A and PPPP)**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## **FG-Coldcleaners FLEXIBLE GROUP CONDITIONS**

### **DESCRIPTION**

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

**Emission Unit:** EU-Coldcleaners

### **I. EMISSION LIMIT(S)**

NA

### **II. MATERIAL LIMIT(S)**

1. The permittee shall not use cleaning solvents containing more than five percent by weight of the following halogenated compounds: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof. **(R 336.1213(2))**

### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases. **(R 336.1611(2)(b), R 336.1707(3)(b))**
2. The permittee shall perform routine maintenance on each cold cleaner as recommended by the manufacturer. **(R 336.1213(3))**

### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The cold cleaner must meet one of the following design requirements:
  - a. The air/vapor interface of the cold cleaner is no more than ten square feet. **(R 336.1281(h))**
  - b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. **(R 336.1285(r)(iv))**
2. The cold cleaner shall be equipped with a device for draining cleaned parts. **(R 336.1611(2)(b), R 336.1707(3)(b))**
3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. **(R 336.1611(2)(a), R 336.1707(3)(a))**
4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. **(R 336.1707(3)(a))**
5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees fahrenheit, then the cold cleaner must comply with at least one of the following provisions:
  - a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. **(R 336.1707(2)(a))**



- b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. **(R 336.1707(2)(b))**
- c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD. **(R 336.1707(2)(c))**

## **V. TESTING/SAMPLING**

NA

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

- 1. For each new cold cleaner in which the solvent is heated, the solvent temperature shall be monitored and recorded at least once each calendar week during routine operating conditions. **(R 336.1213(3))**
- 2. The permittee shall maintain the following information on file for each cold cleaner: **(R 336.1213(3))**
  - a. A serial number, model number, or other unique identifier for each cold cleaner.
  - b. The date the unit was installed, manufactured or that it commenced operation.
  - c. The air/vapor interface area for any unit claimed to be exempt under Rule 281(h).
  - d. The applicable Rule 201 exemption.
  - e. The Reid vapor pressure of each solvent used.
  - f. If applicable, the option chosen to comply with Rule 707(2).
- 3. The permittee shall maintain written operating procedures for each cold cleaner. These written procedures shall be posted in an accessible, conspicuous location near each cold cleaner. **(R 336.1611(3), R 336.1707(4))**
- 4. As noted in Rule 611(2)(c) and Rule 707(3)(c), if applicable, an initial demonstration that the waste solvent is a safety hazard shall be made prior to storage in non-closed containers. If the waste solvent is a safety hazard and is stored in non-closed containers, verification that the waste solvent is disposed of so that not more than 20 percent, by weight, is allowed to evaporate into the atmosphere shall be made on a monthly basis. **(R 336.1213(3), R 336.1611(2)(c), R 336.1707(3)(c))**

## **VII. REPORTING**

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
- 2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

## **VIII. STACK/VENT RESTRICTION(S)**

NA

**IX. OTHER REQUIREMENT(S)**

NA

<b>FG-Rule 287(c)</b> <b>FLEXIBLE GROUP CONDITIONS</b>
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**DESCRIPTION**

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 287(c).

**Emission Unit:** EU-Rule 287(c)

**POLLUTION CONTROL EQUIPMENT****I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Underlying Applicable Requirement
1. Coatings	200 gallons	Per month, as applied, minus water, per emission unit	NA	R 336.1287(c)(i)

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. Any exhaust system that serves only coating spray equipment shall be equipped with a properly installed and operating particulate control system. (R 336.1287(c)(ii))

**V. TESTING/SAMPLING**

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the DNRE, AQD Rule 287(c), Permit to Install Exemption Record form (EQP 3562) or an alternative format that is approved by the AQD District Supervisor. **(R 336.1213(3))**
  - a. Volume of coating used, as applied, minus water, in gallons. **(R 336.1287(c)(iii))**
  - b. Documentation of any filter replacements for exhaust systems serving coating spray equipment. **(R 336.1213(3))**

**See Appendix 4**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

**See Appendix 8**

**VIII. STACK/VENT RESTRICTION(S)**

NA

**IX. OTHER REQUIREMENT(S)**

NA

<p style="text-align: center;"><b>FG-Rule290</b> <b>FLEXIBLE GROUP CONDITIONS</b></p>
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**DESCRIPTION**

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.

**Emission Unit:** EU-Rule 290

**POLLUTION CONTROL EQUIPMENT****I. EMISSION LIMIT(S)**

1. Each emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(i))**
2. Each emission unit that the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all the following criteria listed below are met: **(R 336.1290(a)(ii))**
  - a. For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(ii)(A))**
  - b. For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 microgram per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(a)(ii)(B))**
  - c. For carcinogenic air contaminants with initial risk screening levels greater than or equal to 0.04 microgram per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(a)(ii)(C))**
  - d. The emission unit shall not emit any air contaminants, excluding non-carcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 microgram per cubic meter. **(R 336.1290(a)(ii)(D))**
3. Each emission unit that emits only noncarcinogenic particulate air contaminants and other air contaminants that are exempted under Rule 290(a)(i) and/or Rule 290(a)(ii), if all of the following provisions are met: **(R 336.1290(a)(iii))**
  - a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have an exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(a)(iii)(A))**

- b. The visible emissions from the emission unit are not more than 5 percent opacity in accordance with the methods contained in Rule 303. **(R 336.1290(a)(iii)(B))**
- c. The initial threshold screening level for each particulate air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(a)(iii)(C))**

## **II. MATERIAL LIMIT(S)**

NA

## **III. PROCESS/OPERATIONAL RESTRICTION(S)**

- 1. The provisions of Rule 290 apply to each emission unit that is operating pursuant to Rule 290. **(R 336.1290)**

## **IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

## **V. TESTING/SAMPLING**

NA

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

- 1. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the DNRE, AQD Rule 290, Permit to Install Exemption Record form (EQP 3558) or an alternative format that is approved by the AQD District Supervisor. **(R 336.1213(3))**
  - a. Records identifying each air contaminant that is emitted. **(R 336.1213(3))**
  - b. Records identifying if each air contaminant is controlled or uncontrolled. **(R 336.1213(3))**
  - c. Records identifying if each air contaminant is either carcinogenic or non-carcinogenic. **(R 336.1213(3))**
  - d. Records identifying the ITSL and IRSL, if established, of each air contaminant that is being emitted under the provisions of Rules 290(a)(ii) and (iii). **(R 336.1213(3))**
  - e. Material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in sufficient detail to demonstrate that the actual emissions of the emission unit meet the emission limits outlined in this table and Rule 290. **(R 336.1213(3), R 336.1290(c))**
- 2. The permittee shall maintain an inventory of each emission unit that is exempt pursuant to Rule 290. This inventory shall include the following information. **(R 336.1213(3))**
  - a. The permittee shall maintain a written description of each emission unit as it is maintained and operated throughout the life of the emission unit. **(R 336.1290(b), R 336.1213(3))**
  - b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(a)(iii), the permittee shall maintain a written description of the control device, including the designed control efficiency and the designed exhaust gas flow rate. **(R 336.1213(3))**
- 3. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(a)(iii), the permittee shall perform a monthly visible emission observation of each stack or vent during routine operating

conditions. This observation need not be performed using Method 9. The permittee shall keep a written record of the results of each observation. **(R 336.1213(3))**

**See Appendix 4**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

**See Appendix 8**

**VIII. STACK/VENT RESTRICTION(S)**

NA

**IX. OTHER REQUIREMENT(S)**

NA

## **E. NON-APPLICABLE REQUIREMENTS**

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).



## APPENDICES

### Appendix 1. Abbreviations and Acronyms

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

AQD	Air Quality Division	MM	Million
acfm	Actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	MW	Megawatts
BTU	British Thermal Unit	NA	Not Applicable
°C	Degrees Celsius	NAAQS	National Ambient Air Quality Standards
CAA	Federal Clean Air Act	NESHAP	National Emission Standard for Hazardous Air Pollutants
CAM	Compliance Assurance Monitoring	NMOC	Non-methane Organic Compounds
CEM	Continuous Emission Monitoring	NOx	Oxides of Nitrogen
CFR	Code of Federal Regulations	NSPS	New Source Performance Standards
CO	Carbon Monoxide	NSR	New Source Review
COM	Continuous Opacity Monitoring	PM	Particulate Matter
department	Michigan Department of Natural Resources and Environment	PM-10	Particulate Matter less than 10 microns in diameter
dscf	Dry standard cubic foot	pph	Pound per hour
dscm	Dry standard cubic meter	ppm	Parts per million
EPA	United States Environmental Protection Agency	ppmv	Parts per million by volume
EU	Emission Unit	ppmw	Parts per million by weight
°F	Degrees Fahrenheit	PS	Performance Specification
FG	Flexible Group	PSD	Prevention of Significant Deterioration
GACS	Gallon of Applied Coating Solids	psia	Pounds per square inch absolute
gr	Grains	psig	Pounds per square inch gauge
HAP	Hazardous Air Pollutant	PeTE	Permanent Total Enclosure
Hg	Mercury	PTI	Permit to Install
hr	Hour	RACT	Reasonable Available Control Technology
HP	Horsepower	ROP	Renewable Operating Permit
H <sub>2</sub> S	Hydrogen Sulfide	SC	Special Condition
HVLP	High Volume Low Pressure *	scf	Standard cubic feet
ID	Identification (Number)	sec	Seconds
IRSL	Initial Risk Screening Level	SCR	Selective Catalytic Reduction
ITSL	Initial Threshold Screening Level	SO <sub>2</sub>	Sulfur Dioxide
LAER	Lowest Achievable Emission Rate	SRN	State Registration Number
lb	Pound	TAC	Toxic Air Contaminant
m	Meter	Temp	Temperature
MACT	Maximum Achievable Control Technology	THC	Total Hydrocarbons
MAERS	Michigan Air Emissions Reporting System	tpy	Tons per year
MAP	Malfunction Abatement Plan	µg	Microgram
MDNRE	Michigan Department of Natural Resources and Environment	VE	Visible Emissions
mg	Milligram	VOC	Volatile Organic Compounds
mm	Millimeter	yr	Year

\*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).

## Appendix 2. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. (R 336.1213(4)(a), R 336.1119(a)(ii))

## Appendix 3. Monitoring Requirements

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in the following emission units and flexible groups:

## FG-CONTROLS

### APPENDIX A

Permit No. MI-ROP-N0929-2003  
AutoAlliance International Incorporated  
Malfunction Abatement Plan  
June 19, 2007

This document was created to define the malfunction abatement plan as required by sub rule (2) of Rule 911 of the Air Pollution Control Rules – Part 9. Emission Limitations and Prohibitions. This abatement plan is used to detect, prevent, and correct malfunctions or equipment failures resulting in emissions exceeding applicable emission limitations. The plan will be revised within 45 days of occurrence if a malfunction occurs that is not addressed within the plan.

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### **Description of Control Equipment**

Emissions from the AutoAlliance Body Paint Shop are controlled, in part, by the three regenerative catalytic oxidizers (RCO) and a regenerative thermal oxidizer (RTO), which destroy paint booth and oven volatile organic compound (VOC) emissions resulting from the painting of automobile bodies. Spray booths served by the RCOs are located at the AutoAlliance guidecoat, topcoat, and clearcoating operations. The RTO serves the body paint shop oven emission sources.

The RCOs control the VOC emissions resulting from the painting process by oxidizing the VOC in the presence of a catalytic media at an elevated temperature. Similarly, the RTO controls the body paint oven emissions by oxidizing them thermally at high temperature (1400 degrees Fahrenheit). Both the RCO, and RTO are designed to maximize their thermal efficiency by recovering as much heat as possible by reversing the VOC laden air flow on a timed basis through a ceramic medium that recovers heat generated as a result of the VOC destruction process. In the case of the RCOs, catalytic media is placed on a portion of the ceramic medium to reduce the processing temperature used to destroy VOCs, thereby reducing energy costs and green house gas emissions. This catalytic medium is kept at a minimum operating temperature of 800 degrees Fahrenheit when the RCOs are in use.

The number of RCO's in operation at any time is dictated by the volume of booth gas that is to be controlled. Each RCO is capable of processing up to 150,000 cubic feet of booth gas per minute. The RTO is dedicated to processing oven emission gases and is capable of processing up to 25,000 cubic feet of oven gas per minute.

### **Preventative Maintenance Program**

#### **Identification of Supervisory Personnel**

The Paint Area Manager and the Paint Manufacturing Engineering Manager are responsible for overseeing the inspection, maintenance and repair of air-cleaning devices. Repair work is completed by either plant skilled trades personnel or outside contractors experienced in the maintenance and operation of these devices.

#### **Descriptions of Items and/or Conditions that Shall Be Inspected/Frequency of Inspection or Repairs**

Inspections and routine preventive maintenance, as recommended by the equipment manufacturer and/or identified based on past equipment failures, are performed on a routine basis for the RCO/RTO emission control equipment. Specific inspection and maintenance tasks are part of the facility's Total Equipment Maintenance System (TEMS), which identifies inspection and maintenance task information including part/component worked on, work performed, personnel performing the work, and date of the repair for all major process and control equipment. Documented records of all inspections and maintenance activities performed are maintained within the TEMS system which will be made available to the Michigan Department of Environmental Quality Air Quality Division (MDNRE AQD) for inspection at their request. Table 1 contains highlights of the AutoAlliance preventative maintenance program for the RCO/RTO equipment, including frequency of inspections/repairs.

#### **Major Replacement Parts Maintained in Inventory**

A critical spare parts inventory has been identified and is maintained for the RCO/RTO control equipment at AutoAlliance. Critical spare parts are those that are deemed unique in their design and/or are difficult to obtain, and may contribute to the malfunction of existing control equipment based on supplier information, plant operating experience, and/or good engineering judgment. The inventory list has been developed identifying the critical spare parts kept by the plant and where they are located. The critical spare parts in the inventory are subject to change based on best engineering judgment and technological/equipment improvements.

As spare parts are utilized, necessary replacements are acquired to maintain adequate inventory levels. Inventory checks are routinely performed (e.g. quarterly) to ensure part availability.

Table 2 lists the typical spare parts that are inventoried at AutoAlliance.

### **Regenerative Catalytic/Thermal Oxidizer Monitored Variables**

Important operational parameters including, fan performance, burner condition, vibration, valve movement, hydraulic pressure, chamber temperature, etc. are monitored through the programmable logic controller (PLC). The PLC is programmed to send an alarm (fault) to the AutoAlliance central control room (CCR) in the event that the RCO/RTO operate outside of preprogrammed operating windows.

When an abatement equipment fault condition/status is received by the AutoAlliance CCR, the Paint Department Maintenance staff is contacted to investigate and remedy the fault. The Maintenance staff investigates the fault, makes an immediate repair if possible, notifies CCR of the completion of the repair, and in some cases restarts (if needed). All repairs resulting in downtime, including bypass to atmosphere, on the RCO equipment are noted in the Paint Maintenance Supervisors log book, which can be made available for inspection by the MDNRE AQD upon request.

Should the repair require more time: Maintenance staff will notify CCR of the approximate repair time, complete the repair, notify CCR of its completion for recording, and restart the equipment. Any repair that cannot be made within one (1) hour must be communicated to the facility Plant Manager.

If an abnormal condition or malfunction of the abatement equipment results in the exceedance of an applicable standard or emission limitation lasting longer than two hours, the AutoAlliance Environmental Manager will notify MDNRE AQD. The notification is made as soon as reasonably possible, but not later than two business days after becoming aware of the event. A written report detailing the event is submitted within ten days after the abnormal condition or malfunction has been corrected or thirty days after the abnormal condition or malfunction was detected, whichever is first. The written report identifies the emission source, the time and duration of the event, corrective and preventive actions taken, actions taken to minimize emissions, and, if possible, an estimate of the emissions during the event.

An 8-D Report is completed with details on the equipment faults that occur repeatedly or result in repairs that cannot be addressed immediately. Noted on the form is the concern, containment action, root cause analysis, actions taken (interim and permanent), verification of the repair, and preventative measures. This process of evaluating problem is used throughout the company. The completed forms reside in the Paint Maintenance Annex.

### **Corrective Procedures and Operating Scenarios**

If any destruction efficiency test indicates that an individual RCO fails to maintain a minimum VOC destruction efficiency of 95 percent or has an outlet non methane VOC concentration of greater than 5 ppm (measured as propane), then the facility must take corrective action.

In addition to robust PM and expeditious repair activities, the plant management, in consultation with environmental staff as appropriate, will evaluate the appropriateness and/or feasibility of operational constraints to minimize VOC emissions during RCO/RTO malfunction or abnormal conditions. VOC emissions will be estimated during the malfunction based on similar production data from a previous month. If a breakdown is going to result in exceedance of a short-term mass VOC emission limit on the RCOs or RTO, plant management will consider various options to minimize emissions. Possible operating actions may include, but are not limited to, the following:

- Adjusting two of three RCOs to service operational process sources
- Adjusting production schedule to minimize emissions (i.e. lunches or breaks)
- Reducing operating hours (i.e. don't run scheduled overtime)
- Temporarily slowing down or stopping production through part or all of the paint production process

Primary consideration will be given to the potential risk of negatively impacting human health and the environment. In situations where the risk of negatively impacting human health and environment is high, plant management will consider more drastic operating constraints, including an orderly shutdown to minimize emissions.

**Table 1****AutoAlliance RCO/RTO Preventative Maintenance Activities**

<b>Frequency</b>	<b>Maintenance Activity</b>
Weekly	Check for Lubrication levels/Noise/Vibration/Drive Frequency/Hydraulic oil levels/Valve timing
Monthly	Linkage and valve lubrication/Jumper wire check/ Lubricate valve linkage and shafts/ Check valve hold down bolts
Quarterly	Inspect valve panels for leaks, hydraulic units for oil level/filter, filter houses conditions, combustion blower operation, VFD filters change requirements
Semi Annual	Inspection of proximity switches on all vacuum breakers, E-stop, electrical panels, magnahelic switches condition, dampers adjustments, catalyst visual inspection for gaps and settling, operation of transducers, fan motor lubrication needs, and grease fan couplers
Annual	Hot spot visual inspection, insulation condition, lubricate hydraulic pump motors, and change hydraulic oil/filter

**Table 2****Typical Emission Control Equipment Replacement Part Inventory**

<b>Part Name</b>	<b>Storage Location</b>
Motor for Main Blower	Paint Maintenance Oven Area
Variable Frequency Drives	Paint Maintenance MSC Crib
Thermocouples	Paint Maintenance Crib
Filter House Filter Elements	Paint Maintenance Oven Area
Flame Detection Components	General Stores
PLC Processors and Cards	Paint Maintenance Crib
Gas Train Regulators/Switches/Valves	Paint Maintenance Crib and General Stores
Hydraulic Cylinders and Valves	Paint Maintenance Crib

## **FG-CONTROLS**

### **AutoAlliance International – Outlet Concentration Monitoring Plan Proposal**

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#### Outlet Concentration Monitoring (OCM) Plan – APPENDIX 3

##### **General**

The Outlet Concentration Monitoring (OCM) plan is a trending tool to monitor the performance of the Regenerative Catalytic Oxidizers (RCOs) in FGCOATING.

##### **Monitoring Frequency/Equipment/Duration**

1. Total VOC concentration (including methane) monitoring will be conducted at least eight (8) times per year at regularly spaced intervals using a portable FID analyzer (Model TVA1000B or equivalent). The FID analyzer will be calibrated immediately prior to conducting testing and the calibration will be verified following completion using a zero gas and mid-range concentration gas. Calibration gas certified as working standards or better will be used.
2. Verification testing utilizing a JUM 109a FID or equivalent will be conducted twice (2) per year to determine the total outlet VOC concentration and methane contribution. Verification testing will be conducted simultaneously to the portable FID testing. The JUM 109a or equivalent will be calibrated in accordance with Method 25A procedures. The drift during the run can be no greater than  $\pm 3\%$  of span, or 3 ppmv whichever is the least restrictive, for the results to be valid.
3. The first verification test will be conducted with the first portable FID analyzer sampling event, with subsequent tests performed approximately every six months.
4. The test plan must specify the FID test intervals. The permittee must notify the AQD of FID schedule changes required to accommodate production schedule changes. Notifications can be made by telephone or e-mail.
5. Sampling will be conducted during periods of normal operation from each RCO outlet exhaust stack for a period at least as long as the RCO cycle time.
6. Production information will be documented during each test event. Changes in production data will be considered when evaluating trends in the outlet concentration.
7. Additional monitoring may be required at the request of AQD if community odor complaints are received.

##### **Test Protocol**

1. A written test plan must be submitted at least 30 days prior to the initial verification test. If the permittee does not propose any changes to the initial test plan as approved, the permittee must notify the AQD in writing 30 days prior to subsequent verification tests. After conducting three (3) successful simultaneous testing events, the permittee can request a reduced frequency or termination of the verification testing events at the discretion of AQD District Supervisor. Other compliance testing used to demonstrate compliance with VOC emission limitations contained in PTI 89-07 may be used as a verification test event.

##### **Reporting**

1. A report summarizing the monitoring results must be submitted to the AQD District Supervisor quarterly for all FID analyzer monitoring events completed 30 days prior to the reporting date and all verification tests completed 60 days prior to the reporting date. Reports are due June 15 for reporting period January 1 to March 31, September 15 for reporting period April 1 to June 30, December 15 for reporting period July 1 to September 30 and March 15 for reporting period October 1 to December 31.
2. The summary report will include the average total VOC concentration (including methane) from each RCO outlet exhaust stack and results of all QA tests. Individual stack RCO total VOC concentrations will be used for trending purposes only and not for demonstrating compliance with the permit limitations.
3. Within 180 days after the first verification test, the permittee will submit a proposal to the AQD District Supervisor outlining methods to identify "significant decrease(s)" when evaluating the system average and individual RCO VOC (excluding methane) outlet concentrations performance trends. If verification monitoring indicates a significant decrease in RCO performance, the permittee must notify the AQD in the quarterly report and identify corrective actions.

## FG-Coating

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### Elements of an O&M plan – CAM

General – Keep records of maintenance inspections which include the dates, results of the inspections and the dates and reasons for repairs if made. The following items shall be inspected for each respective control device used to demonstrate compliance with applicable VOC emissions limits.

#### RTO's

- Validation of thermocouple accuracy or recalibration of each thermocouple a minimum of once every 12 months. The thermocouple can be replaced in lieu of validation.
- Perform a heat exchange/heat transfer media inspection a minimum of once every 18 months.\*
- Perform an inspection of the valve seals condition and verify valve timing/synchronization a minimum of once every 18 months.\*

#### RCO's

- Validation of thermocouple accuracy or recalibration of each thermocouple a minimum of once every 12 months. The thermocouple can be replaced in lieu of validation.
- Perform an internal inspection of the catalyst bed to check for channeling, abrasion and settling a minimum of once every 18 months.\*
- Perform sampling and analysis of catalyst activity (conversion efficiency) a minimum of once every 18 months.\*
- Perform an inspection of the valve seals condition and verify valve timing/synchronization a minimum of once every 18 months.\*
- The requirement to address this issue is satisfied if a performance test (i.e., stack test) has been performed on the control device within the prior 18 month period.

## EU-Bulbcrusher

### Recommended Best Management Practices for Drum-top Crushers (DTC)

1. The DTC should be commercially manufactured by a reliable manufacturer. The unit should have a vacuum pump to create negative internal pressure and well designed and tightly fitted seals at all connection points. The DTC must include a bag filter followed in series by a HEPA filter and an activated carbon filter to control particulate emissions.
2. The DTC should be used and stored in a room completely segregated from other parts of the building, with a dedicated ventilation/exhaust system that discharges to the ambient air. The DTC should not be used or stored in areas where the temperature is elevated (e.g., a boiler room). Use workroom ventilation to create a slight negative pressure throughout the entire work area, so any fugitive emissions are captured by the facility's air filtration system. Workroom ventilation/exhaust or exhaust from the DTC should be located away from air intakes.
3. If the DTC must be moved, all ports should be covered or plugged and movement should be done in a manner to avoid disturbing the contents of the drum. Ports should also be plugged or sealed when the DTC is not in use.

4. All operators should be trained in the proper assembly, maintenance and operation of the DTC. This includes training in the proper use of Personal Protective Equipment (PPE); inspection of the DTC to determine proper assembly, damage or wear; feeding spent lamps into the DTC; changing filters and carbon; drum change-outs; and proper clean up of broken lamps.
5. All operators should wear appropriate Personal Protective Equipment (PPE) when operating the DTC. PPE includes puncture-resistant gloves, safety glasses or a face shield, dedicated uniforms or disposable coveralls and booties, and a fit-tested respirator with cartridges designed specifically for use with mercury. Clothing and PPE worn while operating the DTC should not be worn outside the areas designated for DTC use.
6. Before each use, the operator should inspect the DTC for damage or worn components; improper assembly; missing, damaged or improperly fitted seals; seal integrity between the crusher unit and the drum; proper vacuum (negative pressure); and proper air flow.
7. The DTC should be operated according to manufacturer's recommendations. This includes not crushing more than the manufacturer-recommended number of lamps per drum and not using the DTC continually for longer than the manufacturer recommends. The DTC should not be opened to put debris into the drum.
8. The manufacturer's recommended maintenance schedule should be followed for carbon filter and drum change outs. A maintenance log should be kept with the DTC recording all carbon filter changes, drum change outs and other maintenance.
9. Drum change-outs should be performed according to the manufacturer's specifications and procedures, and operators conducting change-outs should wear appropriate PPE. Before changing a drum, allow the contents to settle for at least 15 minutes before removing the DTC from the drum. The drum should be changed by two trained operators, and the full drum should be covered as quickly as possible and tightly sealed. Crushed lamps should not be removed from the drum.
10. The DTC should not be used if there is phosphor (white powder) on or around the DTC; there is any damage to the DTC, especially the vacuum system, seals or filters; or the DTC has been incorrectly assembled or modified in any way.
11. Drums containing crushed lamps should be managed according to applicable federal and state regulations and sent to a commercial recycler. Crushed lamp drums should be structurally sound and well sealed. Crushed lamps should not be transferred to a different container. Drums containing crushed lamps should not be stored in an area where the temperature is elevated (e.g., boiler room) or in the direct sun. A cleanup plan should be developed in the event a drum containing crushed lamps is spilled. The plan should incorporate procedures recommended by the equipment manufacturer, as well as standard industry practices.

## **RECOMMENDED BEST MANAGEMENT PRACTICES FOR LAMP HANDLING & STORAGE**

- 1. Storage of Lamps - Designate an area within your facility to store lamps.**
  - Storage locations should be away from high-traffic areas.
  - Larger facilities may need more than one location for easier access.
  - Storage rooms should be clean, dry and free of broken lamp debris.
  - Areas should ideally have an air handling system that is independent from the rest of the building that does not re-circulate air or reintroduce air through vents and intakes.
- 2. Handling Spent Lamps – Employees should know whom to call if a lamp is burned out.**
  - Trained employees should remove lamps carefully to prevent breakage.
  - Spent lamps should immediately be stored in a sturdy container.



- Spent lamps should not be left in a position or in an area where they can be easily broken.
- 3. Storage of Spent Lamps - Spent lamps can be put back into original boxes, or specially made lamp containers can be purchased for spent lamp storage.**
- Containers should be closed, structurally sound, and constructed to provide protection from breakage during storage and transportation.
  - Containers should lack evidence of leaks, spills or damage that could cause leaks or a release of mercury.
  - Containers should be stable and stored in such a way that they will not easily tip over.
  - Do not pack too many lamps into a container - the pressure could lead to breakage.
  - Do not stack containers too high – addition weight of the pile could crush lamps on the bottom.
  - Do not tape lamps together or use rubber bands.
  - Clearly identify containers of spent lamps (e.g., Waste Lamps or Used Lamps)
  - Close and securely seal containers with tape.
- 4. Handling Broken Lamps – Broken lamps release mercury and may present health hazards. Follow MIOSHA, EPA, and state regulations when managing broken lamps.**
- Create procedures for reporting and managing broken lamps. Post these procedures in areas where fluorescent lamps are handled or stored.
  - Follow the clean-up procedure at [www.epa.gov/mercury/spills/index.htm#fluorescent](http://www.epa.gov/mercury/spills/index.htm#fluorescent). Clean-up procedures (specific instructions and clean-up contact) should be posted in areas where fluorescent lamps are handled or stored.
  - Keep broken lamps in a sealed container, and keep the container in a cool place, away from high-traffic areas, preferably outdoors.
  - Keep cleaning implements used for broken lamps in the room or area and do not use them elsewhere in the facility.
  - Do not open containers of broken lamps to add or remove broken lamps.

#### **Appendix 4. Recordkeeping**

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate source-wide, emission unit and/or flexible group special conditions. Therefore, this appendix is not applicable.

#### **Appendix 5. Testing Procedures**

There are no specific testing requirement plans or procedures for this ROP. Therefore, this appendix is not applicable.

#### **Appendix 6. Permits to Install**

The following table lists any PTIs issued since the effective date of previously issued ROP No. MI-ROP-N0929-2003b.

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
181-04	Final assembly and gasoline tanks	EU-Final Assembly
197-04	14.64 MM BTU/hr body paint boiler on the phosphate line using natural gas. Space heaters and process ovens using natural gas.	EU-Boiler, EU-Heaters
89-07	Electrocoating of automobile bodies; Application of guidecoat coating including anti-chip primer and black-out; Miscellaneous body coating processes; Coating of plastic parts.	EU-Ecoat, EU-Guidecoat, EU-Topcoat, EU-Coat, EU-Plastic
112-10	One 55-gallon drum-top fluorescent light bulb crusher, controlled by a bag filter followed in series by a HEPA filter and an activated carbon filter.	EU-Bulbcrusher
138-10	Flex permit for automobile painting and assembly operations.	EU-Plastic Purge & Clean EU-Stamping Shop EU-Phosphate EU-Ecoat EU-NGB Adhesives & Sealers EU-Deadeners EU-Glass Install EU-Guidecoat EU-Topcoat EU-Final Repair EU-Black Out/Wax EU-Undercoat EU-Assembly Purge & Clean EU-Tanks EU-Fluid Fill EU-Start-Up/Roll Test EU-Natural Gas FG-Facility FG-Controls FG-Auto MACT FG-Old Facility

## Appendix 7. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in the following emission units and flexible groups.

### EU-Plastic

[To show compliance with tons/year VOC limit]

***VOC Emission Rate Annual Emission Calculation (tons VOC/year): (12 month rolling time period)***

$$\text{Tons VOC/year} = \frac{\sum_{n=12} \text{Usage (gallons(minus water)/month)} * \text{VOC(lbs/gal minus water)}}{2000 \text{ lbs/ ton}}$$

[To show compliance with lbs/hour VOC limit]

***VOC Emission Rate Hourly Emission Calculation (lbs/hr):***

$$\text{Pounds VOC/hour} = \frac{\text{Usage (gallons (minus water)/month)} * \text{VOC(lbs/gal minus water)}}{\text{Monthly hours of operation}}$$

[To show compliance with pounds/gallon minus water as applied VOC limits as described in R336.1621 and R336.1632. Sealers/Adhesives in a particular Coating category shall be averaged together to show compliance with a category limit.]

***VOC Emission Rate Pounds of VOC per Gallon of Coating Minus Water(lbs. VOC/gal (minus water)):***

Follow the calculation method described in R336.2040(a). Note: Averaging period is a 24 hour calendar day. Monthly data shall be divided by the number of days of production in the given month to get a 24 hour averaging period.

- 1) Determine the VOC content of each coating, minus water, as applied, “P” during the averaging period by using the method described in R336.2040(5).
- 2) Determine the weight of VOC used during the averaging period “M” by using the method described in R336.2040(6).

$$M = \sum_{i=1}^z L_{ci} P$$

- 3) Determine the total volume of coatings used on the coating line during the averaging period “G<sub>t</sub>” using the following equation:

$$G_t = \sum_{i=1}^z L_{ci}$$

- 4) Determine the volume-weighted average weight of VOC per gallon, minus water, as applied, by the following equation:

$$P_a = M/G_t$$

- 5) If “P<sub>a</sub>” is less than or equal to the specified emission limit, the coating line meets the emission limit.

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in EU-PLASTIC PURGE & CLEAN.

[To show compliance with tons/year VOC limit]

***VOC Emission Rate Annual Emission Calculation (tons VOC/year): (12 month rolling time period)***

$$\text{Tons VOC/year} = \frac{\sum_{n=12} \text{Usage (gallons(minus water)/month)} * \text{VOC(lbs/gal minus water)}}{2000 \text{ lbs/ ton}}$$

## LIGHT BULB CRUSHER RECORDKEEPING

Permit to Install Number \_\_\_\_\_ Crusher ID \_\_\_\_\_

[illegible]

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## **Appendix 8. Reporting**

### **A. Annual, Semiannual, and Deviation Certification Reporting**

The permittee shall use the MDNRE Report Certification form (EQP 5736) and MDNRE Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

### **B. Other Reporting**

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.